DOCTOR

D. SENNERTVS

OF

AGUES

AND

FEVERS.

Their Differences, Signes, and Cures.

Divided into four Books:

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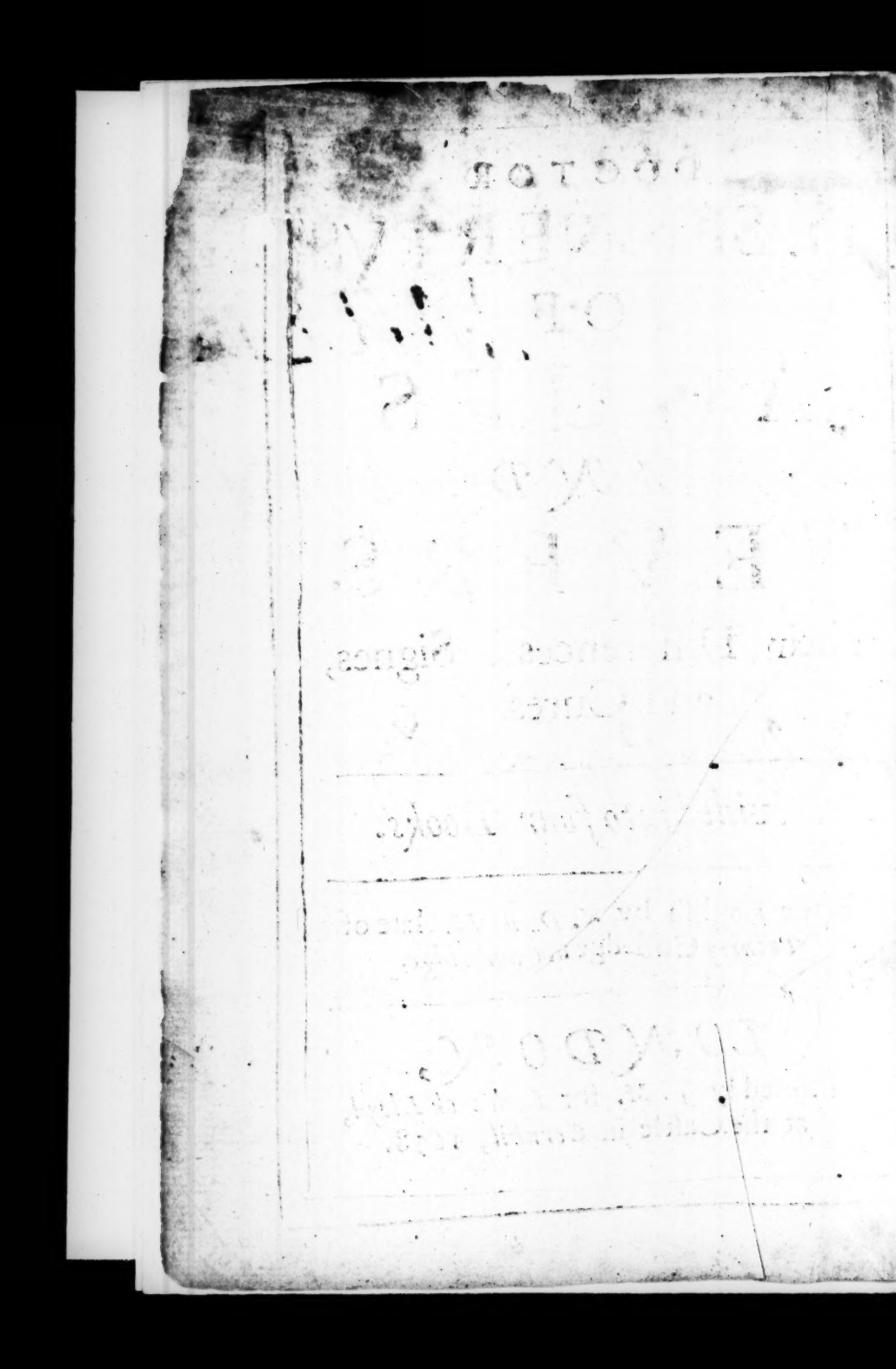

To the *Reader*,

HEALTH *and* SAFETY.

WOnder not Reader, that you ſee theſe Rarities in the Engliſh Tongue, written by the learned Profeſſor of Phyſick, D. *Senvertus*; neither be angry that the Myſteries of this Noble Art are laid open for the unlearned to peruſe, for ſuch I deſign them. The antient Greeks as *Hippocrates*, *Galen*, &c. and the Arabians, as *Avicen*, *Averoes*, *Meſue*, *Serapio*, &c. wrote all in their own genuine language, as *Celſus*, *Serenus*, and other Latines alſo in their vernacular and mother Tongue.

The Author teacheth the knowledge of thoſe diſeaſes that reigne amongſt us, and the cure of all ſorts of Fevers, continued and intermittent (which are called Agues) he ſhews the way to cure the Small Pox, nay the Peſtilence or Plague it ſelf, when it is never ſo contagious.

To the Reader.

Kind Reader, I wiſh thee no grea
happineſs in time of ſickneſs, then t
Book to adviſe thee, where an able Ph
ſitian is wanting; I hope it will find ac
ptance by thee, and be both welcom a
profitable to thee. For my part, as I e
pect no thanks, nor deſire no commend
tion, ſo I fear no ignominy or calumn
tion. May it prove as beneficial to all th
read it in this Tongue, as he deſires it m
that writes it; for ſeriouſly, he aſſu
the world, that all true Chriſtians Liv
are as dear to him as his own; and th
health deſired moſt candidly by him, th
eſteemeth and valueth nothing ſo much
the publique good of his Brethren.

Not long ſince, this Authors five Boo
of *Inſtitutions of Phyſick and Chyrurger*
were publiſhed in the Engliſh Tongu
which incomparable Piece I recommen
to thy ſerious peruſal, as the beſt found
tion for Practiſe) that any man hither
hath laid; Without any further troubli
of thee with theſe Epiſtolary lines, I ref
thee to the Book it ſelf; and ſo Farewel

Th

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Book I.

Of Fevers in General, and of an Ephemera, *and of a* Synocha *with Putrefaction.*

CHAP. I.

Of the Nature of a Fever.

THat which is called by the Latines a Fever, by the Greeks (from fire) is called the fiery distemper; *Hippocrates* plainly calls it fire, if it be very vehement, as being by the consent of all men a hot distemper; For although some Germans call it *Daskalie*, yet that appellation belongs not to every Fever, neither doth it expres the nature of a Fever, but only signifieth Cold, An intermitting Fever may be so called. *The name of a Fever.*

A Fever is a hot distemper of the whole body, arising from the heart, kindled contrary to nature in the heart, and by the motion of the Blood and Spirits, conveyed through the veins and arterites to all the parts, and hindring natural actions, unless it be prevented. *Its definition and nature.*

For a Fever is generated, when (as *Galen* 1. Aphor. 14. saith it) The native heat is become fiery; For seeing that all parts of the body have a certain temperature, and all of them are actually hot, every one according to its own degree, thereby are rendered fit to perform natural actions; If *Generation of it.*

in the heart, from whence the vital heat is diffuſed over all the parts of the body, each part receiving its due temper from thence, a certain preter-natural heat be kindled and ſpread over the whole body, ſo that to the natural temperature of the parts ſome degrees of preter-natural heat are added, and that actual heat ſhall be increaſed; a certain exceſs of heat and a hot diſtemper is kindled in the whole body, which is called a Fever. Which diſtemper indeed *formaliter*, as ſome ſay, is contrary to nature, and is called a Fever; but *materialiter* 'tis not altogether contrary to nature, for uuleſs there had been before ſome degrees of natural heat extant, the ſupervenient heat could not conſtitute this degree of heat.

Drineſs is no part of the Eſſence of a Fever.

And indeed a hot diſtemper only conſtitutes a Fever; for although all fevouriſh heat tend to drineſs, yet that drineſs is not ſickneſs in all Fevers, neither is the body by fevouriſh heat rendred unfit to perform its natural actions, it is ſo by drineſs in every Fever that the natural actions are hindred; but although the fevouriſh heat always tend to drineſs, yet oftentimes the diſpoſition of the body wherein that heat acteth, and moiſture therewithal, hinders the production of a diſeaſe by drineſs.

The Subject.

The adequate Subject of a Fever is the whole body, or certainly moſt of its parts, but the principal is the heart, as being that wherein that heat is firſt kindled, and from thence communicated to all the other parts of the body, unleſs it be hindred; nor can a Fever be generated, unleſs the heart firſt become hot. Indeed the whole body is the Subject of a Fever in regard of the ſimiliar parts, and as it is indued with actual heat, which is as it were kindled by the innate and influent heat; For this heat when it is changed and converted into a fiery heat from a temperate and moderate, a Fever is ſtirred up.

The proximate cauſe

The immediate cauſe of a Fever is heat kindled in the heart contrary to nature, and diffuſed over all the body; For as the heart whileſt it is well and according to nature, is the fountain of natural heat, and diſperſeth the ſame over all the body, ſo if it grow hot contrary to nature, it diſtributes that unnatural heat over all the parts. For although a Fever may be kindled by the inflamation of other parts likewiſe, yet that happens not unleſs that heat be firſt ſent to the heart, and afterwards from thence to all the parts of the body, whence it comes to paſs that in every Fever the Pulſe is changed. Nevertheleſs every kind of heat in the heart is not ſufficient to cauſe

cauſe a Fever, but ſuch a kind of heat it ought to be, as can cauſe ſuch a hot diſeaſe as can hinder the performance of natural actions.

Whence 'tis manifeſt that a Fever is one thing, and a feavouriſh heat another thing. A Fever properly is that hot diſtemper which happens in the living parts of a body, and renders them unable to act; but the ſevouriſh heat is alſo in the humors and ſpirits, and ſtirrs up that hot diſtemper of the body, which conſtitutes the eſſence of a Fever. *A Fever and feveriſh heat differ.*

CHAP. II.

Of the cauſes of Fevers in general.

ALthough there is but one only cauſe of a hot diſtemper of the whole body, which conſtitutes the eſſence of a Fever, namely, preter-natural heat kindled in the heart, and thence diſtributed over all the body, yet the cauſes from whence that heat in the heart ariſeth, are ſeveral, as *Galen* of the cauſes of diſeaſes, cap. 2. and in the firſt book of differences of diſeaſes, cap. 3. recites five, Motion, Putrefaction, Contact of ſome hot thing, Cloſure of the pores of the skin, or a Retention of a hot ſtream; and laſtly Mixture with ſome hot thing: And of theſe cauſes, ſome by themſelves, and ſome by accident ſtir up heat.

Firſt from Motion, ſithence the Spirits and humours of our bodies are hot, from the confluence of them into any part, according to the various motion of the body and mind, heat is increaſed, which if it be greater, and be either kindled in the heart, or communicated to the heart, a Fever enſueth. *Motion.*

Secondly, Putrefaction excites heat. For ſince all things that do putrifie become hotter, and out of putred bodies are exalted many hot vapours, thence heat is conveyed to the heart by the veins and arteries, and from thence a Fever raiſed. *Putrefaction.*

Thirdly, contact of a hot thing exciteth a Fever: As if the body wax hot by the Sun, Fire, Bath, or Medicine, and that heat be ſent to the heart a Fever followeth. *Contact of a hot thing.*

Fourthly, if the pores of the skin are cloſed, and a hot ſtream and hallituous excrements, which in concoction are generated in the body, and uſe to be ſent out through the pores of the skin, be penn'd in, heat is thereby kindled, and a Fever bred. *Retention of a hot ſtream.*

Laſtly, when hot things are mingled with humours and ſpirits, as meat, drink, hot Medicines, all theſe communicate

that heat which they contained in themſelves to the Spirits and humours, which if they penetrate the heart, and from thence be diſtributed to the other parts of the body, a Fever is thereby kindled.

And indeed the fourth of theſe cauſes, or the retention of the hot *effluvium*, is ſufficient alone without the reſt to cauſe a Fever: But the other cauſes without this can hardly do it. For although from Motion, Putrefaction, Contact, and Mixture with a hot thing, hot vapours are ſtirred up in the body; yet if the body freely ventilate, and that ſo much be daily evaporated and emitted of thoſe vapours as are generated, a Fever is not eaſily occaſioned, but when thoſe vapours are detained, a Fever is ſoon kindled.

Diſpoſition of a body to a Fever.

But although theſe cauſes if they be powerful, may raiſe a Fever in any body whatſoever, yet in bodies inclinable an ordinary power in the cauſes may ſuffice to beget a Fever. Now they are moſt inclinable to Fevers which abound with much heat, ſalt and ſharp humours: For which reaſon Youths are more apt to Fevers, of which you may read, *Galen* 8 Of the Method of healing, cap. 8. where the whole order of Inclinations to Fevers are ſet down. 1. Hot and dry. 2 hot and moiſt. 3. hot only. 4. dry only. 5. temperate. 6. cold and dry. 7. cold only. 8. moiſt only. 9. cold and moiſt. Yet to another kind of Fevers other bodies are more inclinable.

Chap. III.

Of the Symptomes of a Fever in general.

Symptomes of Fevers.

Whereas in a Fever the temper of a body is changed, and rendred hotter, hence certain Symptomes of Fevers muſt neceſſarily enſue: And firſt of all it is hence manifeſt, that thoſe actions are eſpecially hindred, which ſhould be performed by the ſimilar parts as they are ſuch, and by the benefit of the temper of each ſuch part, no organick part concurring. Such action ſince it is Nutrition, and thoſe that are ſubſervient thereunto, they are eſpecially hurt in Fevers. Yet becauſe the Inſtruments by which other actions are performed, conſiſts of ſimilar parts, that imperfection is derived to the hinderance of them, as of vital and animal actions. Indeed the vital actions are principally hurt in a Fever, becauſe the fevouriſh heat is firſt kindled in the heart. Whence in all Fevers the Pulſe becomes more frequent and ſwifter; for ſince the motion of Pulſes in all Fevers may be increaſed,

firſt

firſt, a thick Pulſe, as being moſt facile of all; but if that frequency ſatisfies not the neceſſity, celerity happens, which if that be not ſufficient, then magnitude follows: So that the ſtrength be not debilitated: The animal actions alſo are often hurt. As for other Symptomes, preter-natural heat is obſerved to offend internally or externally. Alſo the excrements and qualities of a body are variouſly changed by reaſon of the hinderances of concoctions.

CHAP. IV.
Of the differences of Fevers in general.

THe differences of Fevers are taken from their eſſence, or from their accidents. *Hippocrat. 6. Epid. comment. text.* 19. propounds the differences taken from the heat it ſelf of the Fever, that ſome Fevers are biting, namely, ſuch as ſtrike the hand of them that touch them, and by reaſon of that ſharp vapour, which is ſtirr'd up by putred matter, it doth as it were prick the hand; but a mild one is ſuch as hath troubleſome heat, but not ſo violent. Moreover the heat of ſome Fevers at the firſt touch is not ſharp, and nipping, but if the hand be continued longer, afterwards it betrayes it ſelf. On the contrary others are quick at firſt to the touch, but if the hand continue longer, it is overcome by the hand, and a little abated. *Differences.*

But thoſe are the moſt proper differences which are taken from inherence in the Subject, and the cauſe of inhering, which Fevers are divided into *Ephemeraes*, putred and hectick, the trueſt foundation of which diviſion is, that one Fever is in habitude, the other in habit, for although the fevouriſh heat in every Fever poſſeſs the ſimilar parts of the body; yet ſome are ſo inherent in the body, that they require no cauſe to cheriſh them, and although they are not fed by the kindling of humours and Spirits, nevertheleſs they will continue, which ſort are called Hectick. Another hot diſtemper is ſo inherent in the ſimilar parts of the body, that unleſs it be cheriſhed by the kindling of humours and Spirits it can no more ſubſiſt, which Fever is called a Fever in habitude, which in reſpect of the cauſe is twofold, an *Ephemera*, to which alſo a *Synocha* without putrefaction is referred; and a putrid.

There is another thing worth the noting, that one Fever is Primary, another Symptomatical, Primary is that which follows no former diſeaſe, but depends on its proper cauſe: Se-

condary or Symptomatical is that which ariſeth from the inflamation of any member. See *Galen.4.Aphor.7.*

But of Symptomatical this is to be noted, that thoſe which by the ancients were accounted Symptomatical, were indeed primary many of them, and inflamations of the parts, of the Membrane that covers the ribbs, of the lungs or chopps, rather happened to thoſe parts, then the Fever to take it's riſe from them: Which Fevers may be called *Comitata*, or ſuch as accompany the Fever.

Fevers accompanied.

Chap. V.
Of the cure of Fevers in general.

Cure.

NOw to the cure. A Fever as it is a Fever being a hot diſtemper, indicates cooling things are to be uſed. *Galen.8.Meth.Med.Cap.1.*

But becauſe there is no ſmall difference amongſt Fevers, and that a Fever is often joyned with it's cauſe, regard is to be had of the cauſe of the ſame. Nay indeed becauſe the cauſe often offends more then the Fever it ſelf, the Fever is ſo to be cooled, as that the cauſe may not be cheriſhed, and thoſe things be detained in the body which ought to be evacuated.

And oftentimes error is committed in this, whileſt regard is had only of the heat, cold things are adminiſtred, by which the cauſe of the Fever being detained, the Fever is prolonged: Whereas on the other ſide, heating things, as likewiſe either opening or ſudorifick things, without cooling medicines, often with happy ſucceſs cure the Fever; For the cauſe being taken away, the Fever it ſelf ceaſeth of it's own accord; Whereof more particularly hereafter.

Chap. VI.
Of the Fever Ephemera.

Fevers in habitude.

THere are two ſorts of Fevers whoſe heat are inherent in our bodies in habitude. For that the hot diſtemper of the parts is cheriſhed either by the heat of the Spirits or humors; and the humors are inflamed either with or without putrefaction.

The name Ephemeros.

Thoſe Fevers which are ſuſtained by the heat of the Spirits and humours without putrefaction, are called *Ephemera* and *Humorales* without putrefaction: Thoſe which are kindled by putrifying humours are called putred Fevers.

That Fever which is cheriſhed by the kindling of Spirits,

is

is called by the Greeks, *Puretos Ephemeros*, by the Latines, *Diaria* and *Ephemera*, by a name not taken from the nature of the diſeaſe, but from it's duration. In reſpect of the Eſſence thereof, it may be defined thus: It is a Fever ariſing from and depending on the heating and inflaming of the vital Spirits. *Definition*

The proximate cauſe of this Fever is the heat of the vital Spirits kindled contrary to nature, which being ſpread over the whole body through the arteries, heats the whole againſt nature. *The next cauſe.*

That heat is ſtir'd up from all thoſe cauſes before mentioned in the ſecond Chapter, only except from putrefaction, which ſometimes immediately, ſometimes remotely, by means of the natural and animal Spirits heat the vital; to wit, perturbations of the mind, ſadneſs, fear, ſolitude, anger, over much watching, too much intentiveneſs of the mind, too much exerciſe of body, grief, hunger, thirſt, hot meats and drinks, drunkenneſs, crudities in bodies cholerick, heat of air, fire, hot Baths, retention of the hot *Effluvium*, inflammations of Kernels and Buboes, from the which heat alone without putred vapours is conveyed to the heart according to the vulgar opinion. Yet is ſeemeth not impoſſible but that thoſe putred vapours by the veins and arteries next to the part affected, may be communicated to the heart. And ſo theſe Fevers ſhould rather be Symptomatical then abſolute, putred then *Ephemeral*. *Remote cauſe.*

Thoſe that are hot and dry eaſily fall into this Fever, in whom many hot dry vapours are collected, which are eaſily inflamed by cauſes heating them more. *Diſpoſition of body.*

Amongſt the Signs by which this Fever is known and diſcerned from others, in the firſt place, *Galen. 1. de differ. Febrium c. 7.* ſaith, it beginneth from ſome procatartick or evident cauſe; which indeed is an inſeperable ſign, but not a proper ſign; for although a Fever that doth not ariſe from a manifeſt cauſe is not an *Ephemera*, yet every Fever which ariſeth from a manifeſt cauſe is not therefore an *Ephemera*. 2. Moreover the Urine in ſubſtance, colour, and contents, is moſt like unto the Urine of healthy men, or at leaſt recedes not much from them, which in an *Ephemera*, which proceeds from crudity, it uſeth to do, in which the Urine uſeth to appear more crude and whiter. 3. The Pulſe is nearer to a natural one, then in any other Fever; only that it uſeth to be extended in magnitude, celerity, and frequency. Yet in regard of the cauſe which occaſioned the Fever, ſome change *Diagnoſtick ſigns.*

may be made in the Pulse. 4. The heat of this Fever is gentle and weak in respect of other Fevers. 5. Nay in the very state and height thereof it is somewhat more gentle and moderate. 6. This Fever invades without shakings, or tremblings; it's increase and augmentation in heat and pulse is free and equal. 7. The declination is performed by moisture, or moist evaporation, by sweat like theirs who are sound in health, which by a little exercise more then ordinary comes forth, and a perfect apurexie follows that moisture, so that after the declination no footing is left for the Fever, either discernable by Pulse or any other circumstances: And in case any footing be left, it is a sign that it will turn into another sort of Fever.

The causes are most perfectly to be known by the relation of the sick, which may instruct the Physician whether from passion of the mind, exercise of the body, or any other evident cause this disease hath been occasioned. These causes also affords some signs of themselves, which the Physician cannot be ignorant of.

Prognosticks. These Fevers are the shortest of all others, and continue not above twenty four hours: There is no danger in them, unless some error be committed, and for the most part they are conquered by nature, wherefore Physicians are seldom called to their cures. Yet according to the diversity of their causes some are cured more easily, others with more difficulty. For those causes which are hardly taken away, and the humours are apt to corrupt, a Fever introduced from such, easily degenerates into a putred; which happeneth when it is extended above four and twenty hours, or no sweat appears, and pain in the head be present and persevere: And it degenerates either into a *Synocha* without putrefaction, if the body be youthful and plethorick; or into a putred, if the body be cacochymick, or into a Hectick, if the body be hot, dry, and lean. And the proper signs of those Fevers shew into what sort of them the transmutation will be made.

Indications. Moreover sithence this Fever is a hot distemper of the whole depending on the heat of the Spirits inflamed: And seeing the heat of the Spirits, and the distemper thence introduced indicate cooling, yet if the cause exciting the same be still present, that also ought to be taken away.

The Cure. These Fevers are cured by good dyet, so that there is seldome any need of strong medicines; the food therefore ought to be cooling and moistning, the meat of good juyce, and ease of concoction, principally cream of Barley, the rest may be mixed with

with lettice, ſorrel, juice of Citron or Lemmon, Vinegar. The drink ſhould be barley-water, ſmall beer or ſmall white-wine: Yet if pain in the head be preſent, or that the Fever be occaſioned by anger, or from a bubo, then wine is to be refrained. The Ancients moſt frequently uſed Baths of warm water, but at preſent, neither the ſame induſtry is uſed in preparation of them, neither are men in our age ſo accuſtomed and diſpoſed to bathe.

Cure of an Ephemera from cloſure of the skin.

In the firſt place diligent care is to be had of that Fever Ephemeral, which ariſeth from the cloſure of the skin, or it's thickneſs, or crudity of the ſtomack, ſince they eaſily turn into putred Fevers. And an *Ephemera* which is cauſed by ſtoppage of the pores of the skin, ſince it comes to paſs rather from plenty of blood, then ill habit of body, in that a vein is forthwith to be opened, that the blood may be diminiſhed and cooled; but the thickneſs of the skin if occaſioned by cold or aſtringent things is cured by thoſe things that rarifie and open the ſame, by a bath of fair water luke-warm, ſoft rubbings, temperate and luke-warm oils, wherewith the body ſhould be annointed. But if the thickneſs of the skin be occaſioned by drying things, uſe moiſtening dyet, and the body ſhould be annointed with temperate and moiſtening oils.

From crudity of the ſtomack.

Laſtly, if the *Ephemera* proceed from crudity, ſince that is twofold, the one called Acid, which proceeds from diminution of heat, the other Nitrous, which is cauſed by preter-natural heat: If from Acid crudity, which ſeldom happens, the *Ephemera* proceed, and that crudity be leſs, ſo that meat may be reduced into a better ſtate, reſt and ſleep are to be occaſioned, and before ſleep meat of eaſie concoction in a ſmall quantity is to be taken, and the ſtomack to be comforted with hot oyls; But if the crudity be great, then the meat is to be ejected by vomit, or if the ſick be not apt to vomit, with a lenitive, he ſhould provoke a ſtool; before it be diſtributed into the veins he muſt then abſtain from meat, and the ſtomack both with internal and external medicines is to be comforted. But if the crudity be unſavoury or nitrous, 'tis to be corrected with cold things, wherewith if the concoction be not helped, the corrupt meat is either to be emitted by vomit, or to be purged by gentle medicines opening the firſt paſſages only, ſuch as are good againſt cholar, and as corroborate the ſtomack.

CHAP.

Chap. VII.

Of an Ephemera *of more dayes, and of a* Synocha *without putrefaction.*

An Ephemera of many days.

THere remains another kind of Fever, called *Ephemera*, to which that appellation doth not belong, because it is extended more dayes: Yet it can be referr'd to no other sort of Fever then this more conveniently; therefore although *Ephemera* should signifie the essence of the Fever, *Ephemera* is so called though with the addition of more dayes.

Such Fevers are those which no wayes differ from *Ephemeral* Fevers newly described, unless in durability, the cause of which is obstruction of cutanious vessels, which when they do continue stopped, an inflamation of the Spirits so long endureth until that cause cease. Moreover to these belong a *Synocha* without putrefaction, commonly called a Fever inflative, which is generated from the fervency of Spirits, and thinner blood without putrefaction.

Synocha without putrefaction.

Cause.

The cause of this Fever is the prohibition of the hot Effluvium, arising from obstructions or striction of the pores of the skin in a plethorick body.

This continues several dayes, namely, to the third or fourth day, neither can the plenty of vapours kindled, and exhaleing, which proceed from the blood, be discussed in one day, nor can the obstruction or astriction of the pores of the skin be opened in one day.

Diagnostick signs.

The Signs of a *Synocha* without putrefaction are the same with those of other *Ephemeraes*, only more evident: For the heat is somewhat greater then in the others; the skin is not dry but moist as it were, the Urine somewhat thicker and redder, the Pulse vehement, swift, frequent, full, great and equal; the face and whole body red and fresh, and as it were blown up; the veins swell and strut with blood, the head is heavy and respiration more difficult.

Prognosticks.

This Fever as the other Ephemerals is void of danger, and is dissolved by sweat or Hemeroids of the nose, within the fourth day, or if it be protracted longer, within the seventh day, so it be rightly handled. For unless it be rightly order'd 'twill degenerate into a *Synocha* with putrefaction, or into a Phrensie, Squincy, Plurisie, or some other perillous inflamation.

But when this Fever ariseth by the inflaming of the thinner blood

blood and Spirits in a plethorick body, occaſioned by the prohibition of tranſpiration, the blood offending in quantity is to be abated, the heat to be cooled, and the cloſed pores to be opened. *Cure.*

Therefore preſently a Clyſter being firſt given, or a lenitive medicine, a vein is to be opened, that the blood may be abated, fanned, and cooled, and better governed by nature: And in that more plentifully then in any other Fever you may bleed, yet ſo, as that the ſtrength may bear it.

As for things altering, *Galen* to cool the blood drinks cold water, and commands the ſick to drink as much of it as they pleaſe, which may be permitted in thoſe which are accuſtomed to ſmall drinks, and in whom no danger is to be feared by drinking the ſame, whether by reaſon of thick juices which the drinking of cold water may hinder the dividing of, or by reaſon of ſome weakenneſs in the bowels, by which they may be offended at the drinking of water: which unleſs ſeeing in our bodies we ſeldom need, we may rather uſe other coolers, ſuch as are *Oxymel* with water, water of *Chicory*, *Endive*, decoct of barley, juice of Lemmon or Citron, *Oxyſaccharum*, Spirit of *Vitriol*, and *Salt*, and the like cooling and opening things. And that the appertion may the more happily be performed, you muſt abſtain from ſyrrups and conſerves with much ſugar in them, unleſs they are much watered. If obſtruction of the pores of the skin be preſent, 'tis to be opened as I ſaid before.

Their diet ought to be thin and little, ſuch as hath force to cool and moiſten, principally a Ptiſan, the meat ſhould be ſavoured with juyce of Lemmon, Pomegranates, Gooſe-berries: Their drink ſhould be barley-water or ſmall beer. *Diet.*

Fernelius 5. cap. of Fevers, makes mention of another ſort of *Synocha*, which is made by the kindling of the Spirits and cholerick humours without putrefaction, and which ariſeth from the ſame cauſes as an *Ephemera*, if it happen in a cholerick body, which opinion indeed may take place if it be meant of the thinner and ſubtiler part of the hotter blood, which ſomtimes uſeth to be called choler, but not if it be ſpoken of excrementitious cholar. *Synoch. Bilioſ. Fernal.*

The end of the firſt Book.

THE

BOOK II.

Of Putred Fevers.

CHAP. I.

Of Putred Fevers in General.

WHereas there is a two-fold ſort of Fevers, whoſe heat is inherent in the parts according to habitude, whereof the one hath it's riſe, and is continued by the kindling of the Spirits, and thinneſt parts of the blood, without putred humours; the other hath it's original from vapours and putred humours; of the former kind 'tis already ſpoken; The next buſineſs is that we handle the putred Fevers.

Putred Fevers. That there are putred Fevers many things ſhew; For neither is it diſſonant from the nature of humours, but that they may putrifie, ſince that may happen to every mixt body; and we ſee humours putrifie otherwiſe in mans body, as it happens in inflamations, wherein quitture is generated; as *Galen* in the 1 of the differences of Fevers, cap. 6. he compares the putridneſs whereby the humours putrifie in the brain, with that, by which Sanies is generated in the humours. And that they do actually putrify, ſufficient reaſons are given, which hereafter we ſhall propound, and the matter it ſelf ſhews that humours do putrifie in the veins. For both blood which cometh forth from breathed veins, and thoſe things which are evacuated by ſtool, Urine, ſweat, ſufficiently by their ſmell and otherwiſe, argue putridity of humours. And the way of cure proves the ſame, for 'tis not performed by things that alter, but evacuate humours, which is partly inſtituted by nature, partly by the Phyſician. For if humoral Fevers could be made without putrefaction, they might alſo be cured by altering things only. And indeed ſuch Fevers are not only malignant as ſome think, but the ſame ſigns appear, and the ſame way of cure is exhibited to intermittent and continued, which are void of all malignity and peſtilency.

What Putrefaction is. *Ariſtotle. 4. Met. c. 1.* defineth putrefaction to be the corruption of the proper and natural heat in every moiſt body, by reaſon

ſon of external ambient heat, but by *Galen* 11 Meth.med.c.8. without doubt not ſo much regarding the common and adequate ſubject of putrefaction, as to mans body, ſubject to medicinal conſideration. It is (ſays he) a change of the whole ſubſtance of the body putrifying to corruption, by reaſon of extraneous heat; the ultimate end of putrefaction is the diſſolution of the parts whereof the mixt body conſiſts, and the corruption of the whole mixture.

How manifold it is,

That we may here paſs by the tedious diſputations which are extant amongſt Philoſophers and Phyſicians concerning putrefaction, this is to be taken notice of, that putrefaction in reſpect of the mixt body putrifying, the one, is according to the whole and perfect, whereby mixt bodies are plainly diſſolved into Elements, out of which they are bred: The other is in ſome part, and imperfect, whereby theſe which are full of moiſture, putrify. For ſeeing the moiſture wherewith it aboundeth cannot wholly be drawn out, only ſome parts thereof, eſpecially the thinner are. And ſuch putrefaction, namely, according to parts, agrees to humors alſo; namely, when ſome particles of theirs are really corrupted, and they looſe their form: Yet the whole humour muſt not neceſſarily looſe it's form; thence it continues it's name, and thoſe corrupted parts being evacuated, it returns to its former nature; unleſs the corruption have ſo far gone, that mutation is made into another kind. Which putrefaction, is putrefaction indeed, and not alteration only. For although the whole be not corrupted, yet ſome parts thereof are really corrupted.

according to the whol

in ſome part.

The cauſe of putrefaction.

Putrefaction in a body is cauſed by extraneous heat, and when the humours are no longer governed by the natural heat, but are deſtitute thereof, they are corrupted. Therefore all things whatſoever which may be an occaſion to hinder the innate heat, ſo that it cannot in its due manner govern the humours, may be ſaid to be the cauſe of putrefaction of the humours.

Putrefaction of humours though oftentimes it be cauſed by obſtruction, and bowels, and prohibiting of free tranſpiration, ſince that, as *Galen.* 11. Meth. med. c. 2. writeth, things hot and moiſt, in a hot and moiſt place not being fanned and cooled by wine eaſily putrifie: Yet putrefaction may be occaſioned without this, by the meeting with putred things, and other cauſes, which debilitate the native heat, and bring in an extraneous heat.

Default of humours.

Firſt, certain humours by reaſon of ſome internal defect, of their own accord tend to putrefaction, or at leaſt are eaſily overcome

come by ſmall cauſes of putrefaction, and having gotten the leaſt occaſion fall into putrefaction: Such vice humours contract firſt from bad meats, of the which they are generated, whether they are ſuch by nature, or any other wayes corrupted: Moreover by meats which are eaſily corrupted, ſuch are fruits rare-ripe. Thirdly, from the ill dreſſing of meats, or ill concoction, or when they are taken in exceſs, or at unſeaſonable hours, or after a prepoſterous manner. Fourthly, by the default of the parts appointed for concoction, by reaſon whereof even the beſt aliment may be corrupted. Laſtly by reaſon of other cauſes which either impede concoction, or retain excrements, as alſo the prepoſterous uſe of the ſix Non-naturals. Therefore by how much the more of ſuch humours are cumulated in the body, by ſo much the more eaſily they putrify. For nature doth not defend excrementitious humours ſo carefully as thoſe which are fit to nouriſh the body; whence they are eaſily corrupted and putrify. Blood alſo out of the veins, being out of it's natural place, and of a hot and moiſt nature eaſily is corrupted. But although ſuch humours turn to putrefaction of their own accord, and being in a hot and moiſt place; yet it happens ſooner if any other cauſe be added. Nay good humours alſo in a ſound body if they are the cauſe in caſe of putrefaction may become putred.

Tranſpiration hindred.

Amongſt all theſe cauſes the firſt and chiefeſt is the hinderance of tranſpiration and ventilation, whether it happen by ſtraitnes of the pores of the skin, or by obſtruction of veſſels & paſſages in the more inward parts of the body. For hot and moiſt things in a hot place unleſs they are ventilated, eaſily putrify. Narrowneſs of pores is occaſioned either by conſtriction from cold, or aſtringent things, or drineſs, as ſtaying under the Sun-beams; or by Obſtructions, which either plenty or vicoſity, or thickneſs of humours brings forth. Moreover the internal paſſages are ſtopped, either through ſtore of blood over-flowing in the body, or plenty of it contracted up and down in many parts, or by the thickneſs and viſcouſneſs of humours.

Cauſæ califacientes.

Secondly, thoſe things cauſe putrefaction, which can kindle preter-natural heat in humours, and call out the native heat; in which number is the Fever *Ephemera*, which for this cauſe is often changed into a putred in hot and moiſt bodies: Moreover the other cauſes heating, as hot air, a hot bath, too much exerciſe of body and mind

Meetings with putred things.

Laſtly, the meeting with putred things, ſeeing that which is touched by what is putred, is defiled and putrifieth

From all which it is manifeſt, that a putred Fever is ſhort, having

aving it's riſe from hot vapours ſtirr'd up by putred humours, nd heating the heart, and thence the whole body againſt nature.

Chap. II.
Of the differences of putred Fevers.

The differences of putred humors.

Although there are many differences of Fevers, neverthe-leſs thoſe which are neceſſary to be known for the perfor-mance of their cure, are taken either from the matter pu-rifying, or the place putrified.

For firſt either ſolid parts putrify, or humours, or even the ſpirits themſelves; concerning which it is controverted as in it's wn place ſhall be ſhewn. Humours that putrify are as well na-ural as preter-natural: And thoſe of every kind, blood, Phlegm, holler, melancholy; which both the variety of thoſe things hich are evacuated by ſtool, vomit and ſweats, and the diffe-nce of Symptomes which happen in Fevers doth ſhew, moreo-r the diverſity of cauſes which went before it, whereof ſome enerate this, ſome that humour, and moreover ſome afford atter for this, other for that humour. And the humours ei-her ſimply putrify, or a malignant venemous quality and conta-ion is joyned with it. Furthermore the place wherein the hu-ours putrefie is not alwayes the ſame; For ſometimes the hu-ours putrefie within the veins and arteries, ſometimes without em. And that putrefaction which is within the veſſels, is ther equally in all the veſſels, or in the greateſt, or in certain rts of a vein.

Whence theſe differences of Fevers do ariſe. Firſt, ſome Fe-rs are ſimply putred, without any malignity or contagion, o-ers malignant, peſtilent, contagious. Moreover ſome Fevers e continual, others intermittent, according as the putred va-ur which is the cauſe containing of putred Fevers, or heat ſtir-d up by putred humours either continually heats the heart, and m thence is diffuſed over all the body, or by certain inter-ills.

Of either of which kinds of Fevers there are again many diffe-nces; For either the putrefaction is kindled in the common ſſels, and not in private paſſages, whence ariſe continued Fe-rs, called Primary: Or the putredity comes by the inflam-ation of ſome peculiar part, and from thence putred vapours e continually communicated to the heart, which Fevers are lled Symptomatical.

Primary continued again are two-fold, for ſome have no aug-mentation,

mentation, nor remiſſion, which they call Fevers containin or fiery *Synochaes.*

Others are continued, yet there is ſome increaſe of heat, a ſometimes remiſneſs, which are called *Synochaes*, and by the g neral name of continual Fevers.

The continual for the time of their increaſe and decreaſe heat, ſome are called tertian, others quotidian, others quarta according as the heat is exaſperated, dayly, each other day, the fourth day likewiſe.

Intermitting alſo according to the time of their invadi ſome are called, tertian, others quotidian, others quartan. N it is obſerved that there are Fevers that have a longer diſtan between the Paroxiſmes.

Chap. III.

Of the ſignes of putred Fevers in general.

The Diagnoſticks.

A Putred Fever is known. 1. From it's heat, which i more gnawing and acrid, then of any other Fever, an that in the increaſe and ſtate. For in the beginning fits, th: heat doth not at the firſt touch of the Pulſe diſcover i acrimony, but if the hand be continued longer it may be perce ved, which proceeds from fuliginous vapours which exhale ou of putred humours. 2. Becauſe it begins without any manife cauſe. Which indeed is a proper ſign, but not an inſeparable on for as often as any Fever is kindled without any manifeſt cauſe you may well determine it to be a putred Fever: Yet ſometime humours are ſo diſpoſed to putrefaction, that upon any ligh occaſion they'l become putred. 3. Urines in putred Fevers ei ther are crude or elſe at leaſt afford but obſcure notes of concoctio on, unleſs an *Ephemeral* be degenerated into a putred Fever, o therwiſe there is no putred Fever wherein the Urine in the begin ning doth not appear crude or obſcurely concocted. 4. The pulſe is more changed then in other Fevers. 5. Putred Fever begin with a cold ſhaking. Which is a proper, but not an inſe parable ſign. 'Tis a proper ſign becauſe neither Diaries nor Hecticks do ever begin with cold ſhaking; yet it is not inſeperable, becauſe all putred Fevers do not begin with a cold fit, as a putred *Synocha.* 6. It is the property of putred Fevers to return by fits and Paroxiſmes; and no other Fever hath fits. Yet this is not an inſeperable ſign, becauſe it doth not agree with all putred Fevers. 7. Laſtly, if any ſign be preſent which is proper to any ſort of putred Fevers, 'tis a ſign it may admit of the general appellation of a putred Fever.

Concerning

Concerning the event of putred Fevers in general not much can be ſpoken, ſince there is great variety and difference of putred Fevers, and the event various: Only this, that the event is beſt to be known by comparing the magnitude of the diſeaſe with the ſtrength of the Patient; For if the patient be very ſtrong, there is much hope of a good end of it, if the party be weak, there is great danger. *The Prognoſtick.*

Chap. IV.

Of the cure of putred Fevers in general.

NOw ſeeing a putred Fever is cheriſhed by the cauſe containing, Indications in putred Fevers are taken ſome from the Fever it ſelf, others from the cauſe thereof. Nor indeed ought vital indications to be neglected. Firſt, a Fever as it is a Fever, indicates cooling things; Moreover as that heat of the whole depends on a hot putred vapour, as on the cauſe containing, the removal of that is alſo indicated; but becauſe putred vapours depend on putred matter, they cannot be removed, unleſs the matter putrified be taken away; putrefaction cannot be taken away except its cauſe be removed, as we ſaid before. Firſt, all evident cauſes which are preſent are to be removed; the antecedent cauſes and whatſoever is in the body, either of ſuperfluous blood or peccant humours, they are to be prepared. and if occaſion require, to be evacuated, ſtreightneſs of paſſages if it be external or interal in the bowels, they are to be opened and free ventilation and reſpiration for the humours is to be procured, Putrefaction is to be reſiſted, and the putred humours are to be cooled and dryed; the generation of peccant humours, by ablation of their cauſe is to be prevented. Yet nevertheleſs ſeeing that theſe indications are often contrary, and that thoſe medicines which are adminiſtred for the cauſe, may make the Fever worſe, and the contrary. We muſt be careful how to perform theſe intentions. And for the moſt part, ſince the Fever comes laſt, the cauſe is to be taken away firſt, ſince the cauſe hath more power then the diſeaſe, and the cauſe of a putred Fever being taken away, the Fever of neceſſity ceaſeth. *Indications in putred Fevers.*

Yet if the greatneſs of the Fever inforce, 'tis neceſſary to have regard of the Fever firſt; and afterwards to the taking away of the cauſe; or certainly if we may firſt go to the taking away of the cauſe, we ſhould be very careful that by thoſe things by which we take away the cauſe, we increaſe not the Fever. But thoſe

things are never to be uſed for the cure of the Fever, which increaſeth its cauſe, ſince that for the moſt part that is of greateſt force.

Chap. V.

Of breathing of a vein.

Letting blood.

Now for the cure to be performed by theſe intentions, and firſt concerning Phlebotomy. *Galen* 11. *meth. medendi. cap.* 15. gives this rule. It is moſt wholeſome he ſayes in all Fevers to open a vein, not only in continued, but alſo in all others which the putrifying humour ſtirreth up, eſpecially when neither age nor want of ſtrength prohibites it. And he addeth this reaſon; For nature which rules our bodies being enlightned, and unburthened of that by which as with a pack it was oppreſſed, what remains, it will overcome without difficulty, and therefore not being forgetful of its proper office, will both concoct what can be concocted, and caſt out what may be emitted. Yet this precept of *Galen* is to be rightly underſtood and explained. For although there are many occaſions for opening a vein, and Authors cannot agree about the reaſon why *Galen* commands Phlebotomy in putred Fevers: Yet 'tis clear he did it, that by evacuation of the blood, nature might be enlightened and freed from the greateſt part of her burthen, for when blood abounds, the opening of a vein, and purging of Cacochymy are the beſt remedies; furthermore when it is a plethorick body, without doubt we ſhould open a vein. In ſome meaſure the breathing of a vein, doth take away the cacochymy contained in the veins, and mixed with the blood, ſince the vein being opened, the vitious humours go out with the blood, eſpecially becauſe purgation which can take away foul humours out of the veins, is not ſo ſafe as the breathing of a vein to be appointed at the beginning of a Fever. For although Phlebotomy cannot take away all the ill humours out of the veins, yet nature is leſſned ſome part of her burthen, and therefore can concoct and maſter the remainder the more eaſily, for it may be that the plenty of blood, which before the ſickneſs was no trouble to the party, now being ſick and weakened with a Fever, may become burthenſom unto him. And although ſome good blood be emitted therewith, yet that hurts not the ſick, but rather helps, as is ſaid: As we alſo ſee by critical Hæmorrhodes, that nature ſends out no ſmall quantity of good blood together. Yet nature for the moſt part uſeth to

Whether, when, and why to be done in a putred Fever.

drive

drive no ſmall part of peccant humours to the extream and ſubcutaneous parts; thence and in the firſt place moſt commonly the worſt blood comes firſt out. Whence it is manifeſt eſpecially in continual Fevers, in thoſe who abound with blood, or have peccant humours mixt with their blood, that bleeding is proper, and that at the beginning, that nature may be unladed of part of her burthen, but if vitious humours are not intermingled with the blood in the greater veins, the breathing of a vein for evacuation thereof is not to be uſed.

Cooling and fanning the blood is performed by letting blood: but they are only to be done when bleeding will not cool it alone.

Rules allowing Phlebotomy.

We are not only to obſerve whether bleeding be needful, but alſo whether the party be ſtrong enough to ſuffer it, when the ſtrength of the vital faculty is principally to be required, ſo that the ſtrength do not languiſh by too great ſtore of blood ſuffocating the Spirits, Age, Habit of body, and condition of the ambient air ſhew the ſtrength.

The quantity that may be taken.

But how much blood is to be taken away, firſt by the plenty of blood, then by comparing the ſtrength of the Patient with the greatneſs of the diſeaſe, will be manifeſt; for greater quantity requires larger emiſſion, leſſer, leſs; robuſtious bodies require larger breathings of veins, weaker require leſs. The ſtrength varies according to temperament, habit of body, age, ſex, ſeaſon of the year, the condition of the Heavens, and the Region, as alſo in regard of certain Symptomes, which uſe to be accompanied with Fevers, as of watchings, pain, and ſuch like.

The time.

As for the time for letting blood, 'tis to be done when 'tis indicated, and no way prohibited; which is in the beginning, and by how much the more the diſeaſe haſtens to increaſe, ſo much the ſooner blood is to be taken away, but if the concoctions are more dull and ſlow, Phlebotomy may be deferr'd longer.

The place.

Veins that are opened for evacuation are beſt in the middle of the arm; yet if the ſick be weak, and that alſo revulſion is to be made from the head, the veins in the foot are to be opened to the greateſt benefit of the ſick.

Chap. VI.

Of Purging.

Purgation.

But becauſe all putred Fevers have their original from foul humours: Now we are to conſider by what means they may

be evacuated, but ſeeing thoſe things which evacuate them are twofold, Lenitives and Purges, properly ſo called: Lenitives are ſafely to be adminiſtred in the beginning of all putred Fevers, becauſe there are ſcarce any bodies wherein the ſtomack, guts, and Meſaraick veins contain not ſome of the peccant humours.

Clyſters. Theſe evacuations are to be cauſed by Clyſters, called looſening medicines, and by vomit. The Clyſters are made of Mallows, Marſh-mallows, Violets, Pellitory, Beares-breech, Mercury, common Oil, or mixt with Violets, brown Sugar, Caſſia, Elect Lenitive, Diacatholicon Hiera, and ſuch like.

Lenitives. Or thoſe lenitive medicines may be given which are at this day in uſe: Syrrup of Roſes ſolutive, of Violets ſolutive, Honey of Roſes ſolutive, Tamarinds, Caſſia, Manna, the lenitive Electuary ſimple, Cream of Tartar.

You muſt uſe ſuch medicines at the times of remiſneſs and intermittings, when the Fever leaſt offendeth, whether it be early in the morning or in the evening.

Sometimes alſo in the beginning of Fevers you may adminiſter a vomit; when great ſtore of matter is contained in the ſtomack and adjacent parts, whereof no concoction can be expected, the which uſeth to corrupt and putrifie in the body, and oftentimes that is eaſily vomited out, which with great difficulty is purged out.

Vomits. The Vomits are ſet down in the fifth Book of the *Inſtitutions part.* 1. *Sect.* 1. *capite.* Some give at this day the roots of *Aſarabecca*, from half a drachm to a drachm. The Chymiſts uſe white Vitriol, Salt of Vitriol, Medicines prepared of Antimony; which do not open only the firſt paſſages, but ſtir the whole body: Theſe are to be uſed with much caution, and as *Hippoc.* 1 *Aphor.* 24. Not without skilful advice.

Purging medicines. Concerning Purgers at what time they are to be uſed, there is great controverſie; for although vitious humours at any time during the diſeaſe, ſhew that they ought to be taken away; Yet they ought not to be evacuated at any time, but inſtead of an Oracle, *Galen* admoniſheth four of preſervation of health, *c.* 5. the Aphoriſme of *Hippocrates* is to be had in eſteem, 22. *Sect.* 1. Such as are concocted and ripe, ought to be purged and removed, not crude; neither in the beginnings, unleſs the matter trouble much, which ſeldom cometh to paſs. But although ſome interpret this Aphoriſm otherwiſe, yet if it be diligently conſidered, 'twill be manifeſt, that *Hippocrates* meant to ſpeak only of putred Fevers, and of no other diſeaſe, and by crude humours intends theſe that by reaſon of their putrefaction in putred Fevers

ought

ought not to be purged, being unfit; by concocted he intends such as are fitting to be purged: The words crudity and concoction, being translated from their proper signification of crudity and concoction to excrementitious humours.

Although there are certain other preparations of humours for purgation both in Fevers and out of Fevers: Yet the name of concoction belongs not to them, and we must distinguish betwixt concoction and preparation of humours. Concoction, whereof *Hippocrates* speaketh, is a reducing of the putred humours into a better condition, and less obnoxious to the body, and a separation of them from good blood, that they may the more profitably be evacuated out of the body; hence concoction belongs only to humours, which are contained in the Veins, and mixed with the blood, but those that are in other places, and not mixed with the blood, may be purged at any time. For these humours unless they are reduced to a certain mediocrity as they are capable of, and are seperated from laudable blood, the Physician in vain, and with much detriment to the sick, endeavours to expell them by purging. For neither will the humours follow the foregoing medicine, neither hath the Physician nature for his assistant, since the matter is only stirr'd and troubled, and various Symptomes arise; either the strength is weakned by the violence of a strong medicine, or the native heat is consumed and weakened. *Concoction of humors.*

Yet flatulent humours may be purged without concoction; For although these are not as yet concocted, yet because there is not only danger lest they should fall upon some principal part, but also because being thin, and already in motion, they easily follow their leading medicine; and the Physician hath nature to assist him, which alone sometimes expells such humours at the beginning, to the great advantage of the sick. But by flatulent humours here, we are not to understand only those which hitherto are moved to no determinate part, but also those which although they rush into some part, yet they are still moveable, and so disposed, that they'l easily remove into another part, and according to their manner, are hitherto wandring, but have not any fixed seat any where. *Flatulent humours.*

Concoction, whereof we here speak, is the work of nature only, which when 'tis strong, gives what perfection they are capable of receiving, even to the vitious humours, as may be seen in the generation of quitture; and this concoction is made only in putred Fevers For whilest the humours ferment in the veins, like new wine, and the good and bad are mixt together,

and cannot easily be seperated: They are called crude, but when the humours are appeased and cooled, and the good may easily be seperated from the evil, they are said to be concocted.

Chap. VII.

Of Concoction and Seperation of humours.

Although the concoction of humours be the work of nature only. Yet a Physician may help her by his medicines, which may either cherish and strengthen the native heat, or take away impediments which may hinder nature in concocting, and reduce the excess of qualities to mediocrity.

Digestive medicines. And medicines of the latter of these two kinds are called Digestives and Concoctives, namely, such as cool the hot humours, heat the cold, moisten the dry, attenuate the thick, incrassate the thin, and if there are any other excesses of qualities, reduceth them to mediocrity.

Concoctors of cholerick humours. So Cholerick humours because they are hot to be allayed, and tempered with cold medicines, and their tenuity if too much, to be reduced to mediocrity, and its power of inflaming to be prohibited. These perform this, Chichory, Endive, Sowthistle, Garden-Endive, Sorrell, Burrage, Bugloss, Violets, Barley; the greater and lesser cooleing seeds, the juice of Lemmon Pomegranates, Gooseberries, Vinegar, Spirit of the salt of Vitriol, and medicines prepared of these.

Phlegmatick. Phlegmatick humours because they are thick and dull, require attenuating, and cutting medicines; such are the opening roots, Hyssop, Bittony, Agrimony, Venus-hair, Vinegar, also Spirit of Vitriol.

Melancholy. In a Melancholly humour, attenuating medicines are also useful, but such as moisten withal: Such as are Burrage, Bugloss, Polypody, Cæterach or Spleen-wort, and such like.

Resisting of putrefaction. But because in all these Fevers, corruption of humors is present, those things which resist putrefaction are also necessary, such are Vinegar, Juice of Lemmon, Citron, Pomegranates, Sorrel, Spirit of Salt of Vitriol.

And those things which are spoken about concoction and crudity of humours, principally take place in continued and acute Fevers, which is manifest from *Hippocrates*, who 1. *Aph.* 24. adjoynes, In acute diseases seldom, and about the beginnings, purging is to be used, and that with diligent premeditation, and 2 *Aphor.* 29. In the beginning of diseases if ought be

be to be moved, move it; but when it flourishes 'tis best to be quiet, namely, if the matter swell big in acute diseases, presently at the beginning 'tis to be evacuated, but if not, a concoction is to be expected, which nature alone performing, very often useth to expell vitious humours, which if it be not done, the Physician useth to do it: The same crudity and concoction is required in intermitting Fevers, for since their causes are scituated in the Mesaraick veins, and the Mesaraick veins contain and elaborate blood of their own accord, if peccant humours be any where mingled with that blood, and begin to putrefie, crudity is said to be present: But when those humours are so conquer'd by nature, that they may easily be seperated, concoction is performed.

Although in intermitting Fevers in every fit some of the peccant matter be evacuated, yet notwithstanding the humour, which is the fuel of such Fevers, is not first taken away before the concoction be performed, and the bad are seperated from the good: That which in quartanes useth to be long in doing; For although each Paroxism some may be expelled, yet as *Galen. 2. of the difference of Fevers. cap.* the last teacheth, superfluities in the part wherein the fewel feeding the Fever is contained being left behind, cause new fits, and purgation is appointed in vain before the humour be concocted and rendred fit to be purged, whereof shall be spoken amongst the intermitting Fevers.

Preparing of humors.

But besides this concoction and preparation of humours, there is yet need of other things, which when the humours are concocted, are to be exhibited: For considering purgation that it may be happily used, the passages ought to be open and the humours fluid, if the passages are obstructed, and thick sluggish humours be present, the wayes through which the humours ought to pass are to be opened, and the humours to be cut and taken away,

Chap. VIII.

Of Sudorificks and Diureticks.

Causing sweat.

But because nature for the most part expells the concocted matter by sweats, so that almost no Fever without them ceaseth and is well cured. The Physician ought to imitate nature, and the body being evacuated, to discuss the remainders by sweats: The Sudorifiques that at this day are in use, are,

Carduus benedictus, Scabions, Fumetary, Tormentill, Zedoarie, Harts-horn, Elder, Bezoar-ſtone, Methridate, and ſuch like, but no ſudoriferous medicine ought to be adminiſtred, if any Criſis by ſtool, vomit, or Hemerrhodes at the noſe be extant, leſt nature ſhould be diſturbed in it's work. They are moſt conveniently exhibited at that time, when nature her ſelf uſeth to remove humours, which happens either before any paroxyſm, or at the end thereof.

Urine provoked. By Urine alſo ſometimes part of the fevouriſh matter is evacuated, and therefore Diureticks after other evacuations are to be appointed, and the moſt temperate amongſt them are to be choſen, which together attenuate the humours, and free the paſſages from obſtructions, as Maiden-hair, Sparagus, Agrimony, &c. But thoſe things which are cold, may timely be uſed alſo, ſince they correct the hot diſtemper of the humours and parts.

Chap. IX.

Of Diet in putred Fevers.

Dyet. Laſtly concerning dyet, and firſt, of meat and drink, not only regarding the uſe of them, for the comfort and refreſhment of our ſtrength, but in reſpect of what is to be permitted, and what prohibited; for when nature is moſt buſied in concoction and evacuation of matter, ſhe ought not to be called from that work to the concoction of meat, hence *Hippo.* 1. *Aphor.* 8. When the violence of the diſeaſe is great, dyet is to be uſed moſt ſparingly, and ibid. *Aphor.* 11. In the Paroxiſm it ſelf, food is to be taken away; for it affords miſchief: and when by circuit the Fever returns in the fits we ought to abſtain.

Form of Dict. In the adminiſtration of dyet in Fevers, we are to obſerve, form, quantity, quality, and time. The form of dyet is threefold, thick, indifferent, and thin. Which of theſe are moſt proper for every one, is to be collected by comparing the ſtrength of the ſick with the morbifique cauſe; neither ought we to give more meat then the ſtrength can concoct; and we ought to conſider whether the ſtrength do more require food, or the diſeaſe forbid it, or the contrary: for by how much the buſier nature is in oppugning the morbifique cauſe, by ſo much the leſs ſhe ought to be burthened with food: She is by ſo much the more buſied in oppoſing the diſeaſe, by how much the paroxiſm is neerer at hand, hence *Hippocrates* 1. *Aphor.* 8. When the diſeaſe is in it's vigour, then 'tis neceſſary to uſe the thinneſt food,

food, and 1. *Aph.* 7. When the diſeaſe is peracute, there are extream labourings; and at height, the thinneſt nutriment is to be taken. But when 'tis not at height, and that we may uſe more nouriſhing things, by ſo much is to varied from the thinneſt of all, by how much the diſeaſe is remitted and abated, and ibid. 10. Thoſe who expect the vigour forthwith to come, ought preſently to take a little nouriſhment. They who expect it afterwards much, and ſhould both in the vigour of it, and a little before it, abſtain. But before-hand the ſick ſhould be more plentifully nouriſhed, that he might be the better able to endure the diſeaſe. But how dyet is to be moderated according to the ſtrength, *Hippocrates* teacheth, 1 *Aphor.* 9. We ought to conjecture by the ſick, whether he can hold out to the vigour of the diſeaſe by the preſcribed dyet or not, or whether he will firſt faint, and being inſufficient with ſuch food, ſhould dye before the diſeaſe depart and be overcome. And 1. *Aphor.* 13. Old men that are not decrepid eaſily endure to faſt, according to theſe, middle aged men, young men leſs, children leaſt of all; and amongſt them eſpecially ſuch as are endued with the choiceſt and moſt acute wits: Cuſtom alſo and courſe of life is to be conſidered in preſcribing of dyet.

The quantity of meat alſo is to be conſidered by comparing of the diſeaſe with the ſtrength of the ſick: For ſince that we muſt never give more food then can be concocted at the time when nature is moſt buſied in oppoſing the morbifique cauſe, the leaſt quantity of food is to be taken, which is in the height thereof. *Quantity.*

Concerning the quality of meat, ſince it is to be conſidered either as it is meat, or as it is medicinal meat, in the former reſpect thoſe meats are to be choſen that are of eaſieſt concoction, full of good juyce, facile to be diſtributed, and which hath the leaſt excrements: But if it be conſidered as Medicinal, Firſt, it ought to be contrary to the Fever, and therefore it ſhould be cold and moiſt, 1. *Aphor.* 16. moreover it ſhould be repugnant to the cauſes, and all exceſs of qualities in them. *Quality.*

The time for food is moſt proper when 'tis indicated, when the body requires nouriſhment, which is when the former meat is concocted, and no ſign is preſent, which may prohibit the taking of it, to wit, no combate betwixt nature and the diſeaſe; therefore during the fits, we ought to abſtain. 1. *Aphor.* 11. unleſs the ſtrength be much decayed and ſpent. *Time.*

Care alſo is to be taken what drink is fitteſt in Fevers, for although it be eaſier concocted then meat, and by it's cooling it mitigates *Drink.*

mitigates the heat, and the drineſs is hindred: Yet we are to be careful that nature be not burthened with it, and the concoction of matter hindred by it, and therefore in intermitting Fevers during the Paroxiſm, we ſhould abſtain from drink as neer as we can: But in continued Fevers, when heat, thirſt, and debility of ſtrength do require, you may give more drink; but ſithence drink is to be conſidered, not as drink only, but as medicinal, hence it comes to paſs, that at certain times, certain drinks are to be choſen. Drink conſidered as drink, ought to be given according to the rules for meat: But as it is conſidered as altering, by how much the dry heat is more intenſe, by ſo much the more, hotter drinks are to be avoided, and the colder to be choſen. Yet regard is to be taken of the cauſe, and oftentimes there will be need of attenuating and abſterging drinks, and not of cooling only; and the matter being deeper faſtened in the part, admits not cooling drink. The drinking of cold water is only uſeful in acute Fevers, 'tis never proper in intermittent. Fair water is often altered with barley, which is called a decoction, and barley-water. Inſtead of drink, Juleps are alſo exhibited, water mixed wih Honey, Oxymel, Emulſions, Whey, ſtrong beer, wine. But ſeeing certain drinks for certain Fevers are moſt convenient, we may more properly handle them ſeverally amongſt the different kinds of Fevers, of which ſorts are peculiar for ſuch a particular Fever then in general to treat thereof.

Air. The air in all Fevers ought to be pure, cold rather then hot, yet ſo temper'd, that the drawing in thereof may rather allay the fevouriſh heat, then meeting with a naked body, cauſe it to ſhut its own pores, which hinders the diſcuſſion of vapours and ſweats, and therefore the ſick is to be covered with outward garments, but ſuch as are light, that ſo the heat may be drawn to the outmoſt parts of the body.

Sleep, reſt. Sleep ought to be moderate. Reſt in putred Fevers is moſt advantagious: *Excrements,paſſions of the mind.* Excrements ought not to be retained beyond meaſure, but to be ejected in due time. The paſſions of the mind ought to be at peace, and ſadneſs, and anger are to be avoided.

Chap. X.

Of the differences of putred Fevers.

Hitherto we have ſpoken of putred Fevers in general, it remains that now we ſpeak of them particularly. Firſt their differences are a little more cleerly to be explained. And they are taken cheifly from the matter putrifying, and the place of putrefaction. *The differences of putred Fevers.*

As for the matter, Fevers ariſe either from choller, or phlegm, blood, or melancholly: To which not without reaſon is added a ſerous humour, eſpecially that Ichor, which is very evil, eaſily obnoxious to putrefaction, and cauſeth the blood and other humours to putrefie more eaſily. Whence ſome are of opinion that Ephemeral Fevers, which commonly are ſaid to ariſe from Spirits kindled, do all proceed from the ebullition of the ſerous part of the venous or arterious blood: And much more a *Synocha* without putrefaction; although the vital Spirits being heat may firſt allure the heat to the ſerous humour. The ſame ſhew that all *Synochaes* or Fevers containing, as they are called, which have no periods, as well putred as not putred, do ariſe from the ſame aqueous and ſerous humour, whether putrefying or not putrefying; whereof the Tract of Fevers may be ſeen. *From the matter.* *A ſerous humour.*

Thoſe Fevers which proceed from blood do all keep a certain continuity and equality; and are neither exaſperated daily, nor each other day, nor the fourth day, but thoſe which do ariſe from Phlegmatick, chollerick, or melancholy humours, all have their periods, whether they are continued or intermittent. *From blood.* *Phlegm.* *Choller.* *Melancholy.*

Beſides theſe there are other Fevers, which although they are exaſperated, yet have no certain periods, ſuch are thoſe which ariſe from inflammation, putrefaction, worms, corrupted milk; as in Infants, blood out of the Veſſels, chyle, and blood imperfect, putrefying in the Meſaraicks. *From other cauſes.*

The matter whereof putred vapours are bred in Fevers, is either contained within the veſſels or without. The veſſels which carry the perfect blood, as the vena cava, and the arteries, or the more imperfect, as the Meſeraick veins. Whileſt blood putrifies in the vena cava, there ariſe continued Fevers, whereof ſome are called *Synochaes*, or containing Fevers, others continued inſtead of a genus and periodick continued. If excrementitious humours putrefie in the Meſaraicks, intermittent Fevers are ſtirred up, but if imperfect blood putrifie in the Meſaraick veins, *From the place.* *within the veſſels.*

veins, continued Fevers are raiſed, but calm ones.

Without the veſſels. Putrifying matter without the veſſels, ſending putred vapours to the veins and arteries, kindles continued Fevers. Such are firſt Symptomatical, which proceed from inflammations of certain parts. Moreover calmer Fevers, which proceed from the ſtubborneſs of the guts and their obſtructions. Thirdly, thoſe that are cauſed by an Ulcer, Fiſtula, and all putrefaction. Fourthly, from corrupt milk, as in Infants, from blood putrefying without the veſſels, alſo the matter of Catarrhs, whence they are called Catarrhal Fevers.

Fevers accompanied. Laſtly, there are Fevers called *Comitatæ*, or Companions, which are occaſioned from matter putrefying in the veins, part whereof when nature either expells out of the body, which happens in a Diarrhæa, Dyſentery, and a Catarrh; or protrudeth into ſome part, which happens in the Meazles, Small Pox, Stragling pains, Quinſey, Peripneumonie, Phrenſie, Eriſipelas, oftentimes. Another diſeaſe then accompanies the Fever.

Chap. XI.

Of a continued putred primary Fever, and firſt of a Synocha *in particular.*

A primary continued Fever. Now concerning putred Fevers in particular, and firſt we will handle a primary continued Fever. A primary continued Fever is that which comes not to apurexie before it be plainly taken away; and hath its riſe from putred humours contained in the greater branches of the vena cava and arterie. For ſince that thence putred vapours are continually ſent to the heart, a continued heat is alſo cauſed, thence until it fully be cured there is no abſence of fire, neither doth it return by intervalls, with tremblings and ſhaking fits.

Primary continued Fevers are two-fold, Some without any remiſſion or exacerbation of the heat, continue from the beginning to the end: But there are others, wherein the heat before the Fever be throughly cured, doth never totally depart, yet at certain periods is increaſed. The former are called fiery *Synochaes*, and Fevers containing; the other are called *Synoches*, or continued, inſtead of a genus.

A putred Synocha. The Fever *Synocha* putred, is a Fever, which without any ſlacking or increaſing afflicteth from the beginning to the end, ariſing from putrefaction of the blood in the greater branches of the

the vena cava. Although continued Fevers may ariſe out of veſſels of determinate parts, yet ſuch are Symptomatical: And if they are true Synochaes, which have their original from the default of any part, as from the womb offending: Yet that part only affords an occaſion, the polluted, putredity being communicated, that the blood in the greater veſſels might corrupt. But there are Fevers riſen from determinate parts, for the moſt part continued Periodicks.

So ſometimes peccant matter in the firſt paſſages collected in the firſt concoction, which uſeth to go to ſome of the humours, which at certain Periods are moved, and hath not as yet received its limits for motion, it uſeth then to corrupt the humours, and communicate putrefaction to the vena cava, which Fevers for the moſt part are malignant.

A putred *Synocha* hath its original for the moſt part from *The cauſe.* tranſpiration hindred, and want of ventilation of the blood, and hot fuliginous retentions, by reaſon of obſtruction of veins, as well in the skin, as alſo in the internal parts. And the blood appointed to nouriſh the body putrifies in theſe *Synochaes*, and putrefying, continually ſends hot vapours to the heart. For when preter-natural heat is ſo kindled in the veins, that nature can no longer rule it, it becomes putred and is corrupted. Nor is there any need that the putred blood ſhould be turned into another humour preſently. For blood of its own nature is apt to putrefaction, and in inflamations we ſee it changed to quitture, not into choller; though nothing hinder it in the veins but that it might: And eſpecially the Ichor or thin wateriſh part of the blood is apt to turn to putrefaction, and by reaſon of the Ichor the blood in the firſt place is corrupted, which happens, when the vapours which ought to tranſpire, are retained in the veins. Yet the whole blood doth not putrifie, but ſome parts thereof, which ſo long as they are not ſeperated from the good blood, crudity is ſaid to be preſent, which afterwards by concoction are ſeperated from the good blood, which being done, Nature appoints evacuation, by which the blood returns to its former purity again.

A *Synocha* is three-fold, *Acmaſtick*, i. e. when it remains al- *Differen-* wayes in the ſame ſtate, namely, when ſo much of the humour *ces.* daily putrifies as is diſcuſſed, this is called alſo *Homotonos*. *Epacmaſtick* or *Anabaticos* is when the heat continually increaſeth, and more of the matter is kindled then can be diſcuſſed. *Paracmaſtick* is when there is more diſcuſſed then corrupted, and thence the heat alwayes decreaſeth. Furthermore if blood which

putrefies

putrifies be temperate absolute, 'tis called a sanguinious *Synocha* in particular: But if it be hotter, which useth to be called cholerick, the disease is then called *Synocha biliosa.*

Diagnostick signs. The Fever is known first by this, that it continues from the beginning to the end without any exasperation and mutation. Moreover because the Pulse is great, vehement, swift, frequent, unequal and inordinate. And in a *Synocha* proceeding from temperate blood the signs of Plethory are present: The blood to him that toucheth seems much and full of vapours, and is not so troublesome and sharp as in other Fevers, and other signes are present which are observed in a *Synocha* that is not putred. A putred *Synocha* is distinguished from a non-putred by certain signs. The heat in a putred is sharper then in a non-putred. In a putred the urine is red, thick and troubled, without any sediment, and crude, or a little concocted in the beginning; the Pulse affords signes of putrefaction, and all the Symptomes are greater then in a Fever that is not putred.

A *Synocha biliosa* happens to those that are troubled with cholerick blood, and the heat is sharper then in a *Synocha* proceeding from temperate blood, thirst is more troublesome, the urine thinner and sharper, and other signes which are usual in cholerick Fevers are discerned.

Prognosticks. This Fever is the most simple amongst the putred, and easiest to be cured. And being pure, seldom passeth seven dayes, but the spurious is extended to the fourteenth day, and is terminated sooner or later, as the signes of concoction appear sooner or later. A white urine in a *Synocha* is evil. The least dangerous of all is that which is called *Synochos Paracmasticos*, next to that *Acmasticos*: But that is most dangerous which continually increaseth, and is called *Epacmasticos*, which easily degenerates into a disease called *Causus.* And by how much the fewer the evil Symptomes are, by so much the better hopes; the more they are, the more danger is shewn.

Indicatious. The whole cure consists in taking away the cause, and altering the fevourish heat Blood therefore as abounding in plenty is to be lessened, the pores of the skin to be opened, the causes of obstructions being taken away. The fevourish heat is to be tempered and allayed, if there be strength, as for the most part there is, thin diet is to be used.

Therefore a vein is forthwith to be opened in the right arm, a Clyster or lenitive medicine being given first, if occasion require, *Breathing of a vein.* and to take away as much blood as the strength will permit. and you may more boldly take away blood in this, then in any other sort of Fever.

Blood

Blood being evacuated, that the concoction may be made *Medicines.*
re facile, we are to uſe thoſe things which allay the heat, free
m obſtructions, and reſiſt putrefaction; namely, the juice of
rrel, Lemmons, Citrons, and Syrrups and Conſerves prepa-
d of them, Syrrup of Sorrel ſimple, Oxymel ſimple, Oxyſau-
rum ſimple, Spirit of Vitriol, and the four cold ſeeds with
oling waters are to be adminiſtred.

Principally we ought to endeavour that the pores of the skin
ay be freed from obſtruction, which for the moſt part is the
uſe of this diſeaſe, which thing Oxymel and wine mingled
ith honey, and the honey diſſolved, will conveniently perform,
nce they are eaſily carried to the outmoſt parts of the body, and
enuate dull thick humours, and ſimple Oxymel reſiſts putre-
ction.

Concoction being perfected, the Ancients uſed to drink cold
ater, and gave ſo much of it to drink, as might not only extin-
uiſh the fevouriſh heat, but that the matter concocted might be
vacuated by ſtool, vomit or ſweats. But in our countries,
ck people are not ſo accuſtomed to drink cold water, and many
nconveniences are to be feared by the uſe thereof. So likewiſe
wimming in cold water, which was uſual with the Ancients, doth
ot agree with our bodies.

The concoction being perfected, nature uſeth for the moſt part
critically to evacuate the corrupted matter, which if it be not
done, it ought to be performed by the Phyſician with purging
medicines.

Dyet in this Fever ought to be thin, becauſe both that blood *Diet.*
aboundeth, and the diſeaſe is ſhort; It ſhould be cooling and
moiſtening, and alſo to have power of attenuating thick hu-
mours, and deterging viſcid ones.

Chap. XII.

Of a Cauſus, *or Burning Fever.*

Whereas amongſt continued Fevers there is often men-
tion made of a *Cauſus*, we are alſo here to ſay ſome-
thing of it: But a *Cauſus* is not any difference of a
Fever, but rather a meaſure expreſſing the quality of fevouriſh
heat. The word *Cauſus* is ſometimes taken generally, and not ſo
properly, ſometimes *ſpecialiter*, and more properly: Generally
for any ſort of Fever whoſe heat is vehement, in particular for a
Fever which hath two Pathognomonicks, great heat, extream and
unextin-

unextinguiſhable thirſt. A *Cauſus* properly and in ſpecie called, is again twofold, legitimate and ſpurious: legitimate that which hath always, and that evidently, thoſe two ſigns joyned with it: an illegitimate is that wherein thoſe two ſigns are not ſo evident.

Burning Fevers. Whence it is manifeſt that burning Fevers, and ſuch as properly and in ſpecie are ſo called, are continued Fevers, and arise from choller. And ſo a *Cauſus* or burning Fever properly ſo called, is a Fever continued, Bilious, and indeed either *Synochus biloſa*, which we have newly handled, or a continued tertian whereof we are to ſpeak next.

Diagnoſticks. The Pathognomonick ſignes as we ſaid before, are two, vehement and burning heat, and unquenchable thirſt, although the ſick ſhall drink; and the more legitimate the *Cauſus* is, by much theſe ſignes are greater, yet the thirſt is ſometimes reſiſted if a little cough happen, which may draw humors from the neighbouring parts.

Concurrent ſignes there are many, as a dry tongue, rough, black, watching, giddineſs of the brain, difficulty of breathing, thick and great, and the ſick continually blow, opening the mouth, that the hot ſpirits may the eaſier exhale.

Prognoſticks. Theſe Fevers if they are pure, never continue long. For nature cannot long endure ſuch burning and vehement heat; and the Symptomes which accompany it with their vehemency. And for the moſt part they are terminated the ſeventh day, ſometimes the ninth, eleventh, fourteenth: but the ſpurious are protracted longer, and all of them are dangerous according to *Hippocrates* 4. *Aphor.* 43. Fevers of what kind ſoever that have no intermiſſion by the third day, are the ſtronger, and fuller of danger. Yet ſome are more dangerous then others, according to the violence of the heat, and of the Symptomes, and force of the ſtrength, and by how much the greater digreſſion is made from the natural ſtate, by ſo much the more dangerous is the Fever. Hence if an old man be troubled with a burning Fever, which ſeldom happens, 'tis deadly, as *Galen* hath it, 1. *Aphor.* 14. They lye down in no leſs danger who are exceedingly burnt in cold air: Who if they have not great ſtrength, neither the ſignes of concoction appear, it can not be that they ſhould eſcape, as the ſame *Galen* 11. *Met. med. cap.* 9. writeth. To whom if vehement Symptomes happen, by ſo much the more dangerous the diſeaſe ſhall be, whether they are Pathognomonick or ſupervenient, yet if by the other ſignes, it be manifeſt to be a burning Fever, and that thirſt be wanting, this alſo is dangerous, for it

it ſhews the ſick either to be in a Delirium, or that the deſiring faculty of the ſtomack faileth.

Black urines are alſo evil, as alſo thin, crude, and ſuch as have other ill tokens in them.

But it is good if the ſick can eaſily endure his ſickneſs, the Symptomes being not without vehemency, if he can eaſily fetch breath; if he complain of pain in no internal part, if he ſleep; if he find benefit by his ſleep; if the body be equally hot and ſoft; if the tongue be not too dry, if the urine be good. But if when the ſignes of concoction appear, and that there is much ſtrength, in a critical day there happen large Hemorrhodes, or bleeding at the noſe, without doubt the ſick eſcapeth: For it is proper if there be any other of the pure burning Fevers, that they ſhould be cured by bleeding. Yet ſometimes they are determined by Sweats, looſeneſs of the belly, vomits, and impoſthums. But there are many Prognoſticks of burning Fevers in *Hippocrates* in *Prognoſticis*, *Porrheticus*, and *Choacis prænotionibus*, and there are many expounded in the Inſtitutions, lib. 3. part. 3.

But by what means burning Fevers are to be cured, appears by what hath been ſpoken of a *Synocha biloſa* with putrefaction, and thoſe things that ſhall be ſaid of the cure of the continued Tertian ſhall make manifeſt.

Chap. XIII.

Of continued Periodick Fevers in general, and of a continued Tertian.

Continu periodick Fevers.

Another kind of continued putred Fevers which they call in particular continued, comprehends thoſe Fevers, which indeed continually remain, and have no remiſſion before they are plainly diſſolved, yet at certain periods they are exaſperated, whence they are called continued periodick and proportionated Fevers.

their cauſes.

But as Fevers containing have their original from the blood appointed for nouriſhing the body; ſo continued Periodicks, as alſo intermittints proceed from an excrementitious humour and Cacochymie. Therefore continued Periodicks agree in this with Fevers containing, that both their cauſes are contained in the vena cava, but with intermittents in this that both proceed from excrementitious humours. But they differ from Fevers containing, in that they proceed from alimentary blood; theſe from an excrementitious humour: From intermittent becauſe the

matter which is the cauſe of continued Periodicks is generated in the ſecond concoction, and contained in the vena cava: But that matter which is the cauſe of intermitting Fevers is contained in the firſt concoction, or certainly in thoſe parts which are about the liver, which are not appointed for perfect ſanguification. Namely, the matter of continued Periodick Fevers is generated in the Organs of the ſecond concoction, if for any cauſe whatſoever it be not rightly performed. For then the peccant humours generated in the ſecond concoction are ſent with the blood into the veins, which there ſtirreth up theſe continued periodick Fevers.

The reaſon of its continuity.

Which matter ſince it is not only confuſed with the blood, as in intermitting Fevers, but from the very firſt original is mixed therewith throughly. Nature alſo cannot expell it before concoction, and therefore the Fever from the beginning continually laſteth. Yet theſe Fevers have exaſperations at ſet times, becauſe that from the inſtruments of the ſecond concoction, freſh matter which is the cauſe of theſe periods is afforded, and indeed for the moſt part from the liver: Whence alſo continued Tertians are moſt frequent.

Signs.

Theſe Fevers are generally known becauſe they never come to apurexie, yet at certain periods they are increaſed and remitted. Neither doth cold, trembling, nor ſhaking fits precede their exaſperation, neither doth ſweat follow their remiſſion.

Differences.

There are three kinds of theſe Fevers.

For ſome are exaſperated each other day, and proceed from Choller, and are called Tertians continued. Others every day which are cauſed by Phlegm, and are called continued quotidians. Others the fourth day, which ariſe from Melancholy, and are called Quartans continued.

A Tertian continued.

Firſt a tertian continued is a putred Fever, ariſing from blood with ill juyce and choller putrefying in the vena cava, indeed continued, but afflicting moſt the third day.

The cauſe.

The cauſes of this Fever are all things which can increaſe ſtore of cholerick Cacochymy in the veins, and being cumulated then can introduce putrefaction; ſuch as are before propounded.

Signs.

This Fever is thus known, in that it is continued, and the third day it is exaſperated. Yet there are preſent other ſignes and Symptomes of continued and burning Fevers.

Prognoſticks.

But what is to be hoped concerning their event, is manifeſt from things which are ſpoken of the Prognoſticks of burning Fevers.

Cure.

Concerning the indications for cure, this Fever if it be pure

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ſince it is exceeding hot and burning; and the cauſe thereof hot and dry, it requires extraordinary cooling and moiſtening, and indeed more then any other Fever.

The humour it ſelf indicates evacuation; but crudity for the moſt part forbids it: but if the Fever be ſpurious, regard is together to be had to the humour which is mixed with choller: if the Symptomes need it they are to be reſiſted likewiſe.

Therefore a vein is to be opened ſo that the ſtrength will permit it, by which means both ſome part of the peccant humour may be evacuated, and the blood cooled and revell'd from the more noble parts. And nature her ſelf ſometimes uſeth to make evacuation by the noſe in the beginning of theſe Fevers, whereby the Fever is wont to be abated; but the vein ſhould be opened in the cubit forthwith in the beginning, or certainly in the augmentation, and blood is to be taken in ſuch plenty as the ſtrength of the patient requires. *Opening a vein.*

But you are not to appoint purgation unleſs the matter be turged. Yet 'tis very neceſſary that the belly and firſt paſſages be evacuated before a vein be opened, but the medicines which perform that, ought to be cold and moiſt not hot; or if they are hot, they ſhould be tempered with the mingling of cold. *Lenitives.*

Afterwards altering, namely, cooling and moiſtening medicines are to be exhibited, both which prepare the humour appointed by nature for concoction, ſuch as are, Syrrup of Sorrel ſimple, Oxymel ſimple, compound, Oxyſauharum ſimple, Syrrup of Sorrel, Wood-ſorrel, the juice of Lemmon, Pomegranate, the accidity of Endive, Cichory, Violets, Gooſeberries, the four greater cold ſeeds, Purcelane, Lettice, the flowers of Water-lillies, Santalum, Water of barley, Sorrel, Endive, Cichory, Strawberries, Water-lillies, Purcelane, ſpec. Diamargariti frigidi, and ſuch like, to which for the reſiſting of putrefaction and hindring inflamation may be added, Spirit of Vitriol and Salt, Nitre prepared is alſo commended: If Phlegm be mixed, opening and attenuating things are to be added; ſuch as the roots of Fennel, Sparagus graminis, and medicines prepared of them, *Alteratives.*

In leek colour'd æruginous choller, *John Langius.* l. 3. epiſt. 1. c. 4. commends Chryſtal.

Topical medicines are alſo profitable to mitigate the heat, as Epithems, Oyles, and Unguents, made of cooling things, which ſhould be applied to the heart, liver, or back. Yet you muſt be careful that you cloſe not the pores of the skin thereby, and hinder tranſpiration, and therefore before the height they *Topicks.*

are seldom used, unless it be when the heat is equally distributed through the whole body, and it is more commodious if they are applied hot then cold.

The matter being concocted, that nature might be strengthned, and stimulated to expulsion, and that the matter might be expelled either by stool or sweat, the Ancients used great quantities of cold drinks, as *Galen* teacheth *9. meth. cap.* 5. and *4. de rat. vict. in acut.* 12.

Purgation But if so be that after concoction nature do not institute evacuation, it is to be done by the Physician, with Syrrup of Roses and Violets solutive, the pulp of Tamarindes, Manna, Rubarb, Trypheta Persica, such as have Scamony in them are not to be admitted; yet sometimes some of Electuarii rosati Mesua, de psyllio and of juice of Roses may be given.

Diureticks For causing Urine in these Fevers an emulsion is profitable, prepared of the four great cold seeds, with the whey of Goats milk, or barly and strawberry water, or with a decoction of the roots of Parsley.

Sydorificks Sweats also ought to be provoked with medicines proper for that purpose, which hereafter shall be mentioned amongst malignant Fevers.

Dyet. Diet ought to be thin; but according as the height of the disease is neerer or farther off, it ought to be thicker or thinner. The meat and drink ought to be cooling and moistening, whence a Ptisan is profitable in these Fevers, the rest should be seasoned with juice of Lemmon and Pomgranates: The drink should be barley water, or water boiled with the juice of Lemmon or Pomegranates, and suggar or small beer. The air should be cold, and if it be not so by nature, it should be prepared by art.

If Phlegm be mingled with choller, and the Fever be a continued Tertian or burning Notha, blood is to be taken away more sparingly: In the preparation of humours, those things are to be added which attenuate Phlegm. Agarick is to be mixed with the Purgers.

Chap. XIV.

Of a continued Quotidian.

A continuel Quotidian. A Continued Quotidian vulgarly called Latica, because it hath a certain hidden and obscure heat, is indeed a Fever continually lasting, yet having every day exasperations arising from indigested phlegmatick humours in the vena cava.

The

The cauſe of this Fever is Phlegm mixed with blood in the vena cava, and there putrifying, and therefore thoſe fall into theſe Fevers which are of ſuch an age and nature as that their bodies are moiſter, as children and infants, as alſo old men and ſuch as have groſſer bodies, and are given to their bellies and to idleneſs, and dwell in moiſt places, but not young men and ſuch as are cholerick. *Cauſe.*

The ſigns of continued periodick Fevers are alſo manifeſt in this Fever, only the violence is moſt about the evening. The heat firſt is gentle, a little afterwards more ſharp, and ſometimes ſeems to abate, and ſometimes to increaſe, by reaſon of the thickneſs of the phlegm which putrifieth. The pulſes are not ſo thick and frequent, the urine is not ſo fiery and red as in other Fevers but thicker, nor are the other Symptomes ſo vehement as in other Fevers. *Signs.*

Concerning the event. 1. This Fever by reaſon of the thickneſs of the humour is long, and hard to be cured, and therefore dangerous. And by how much the thicker the phlegm is by ſo much the more violent and durable, ſo that it is not ended before the fivetieth or ſixtieth day, and the beginning is ſcarce paſt before the twentieth. 2. It continueth leſſer time where many evacuations happen. That which is pure is alſo longer then that which is mixed with choller, and by how much the worſer Symptomes are preſent, and the ſtrength weaker, by ſo much the greater danger there is, which if they are not, health is to be hoped for. 3. By reaſon of the duration of the Fever, and weakneſs of the Liver, the ſick for the moſt part fall into Cachexy and Dropſie. *Prognoſticks.*

As to the cure this Fever is more dangerous in reſpect of the cauſe, then of its heat; and therefore ſince it depends on phlegm that is to be heat, attenuated, cut, and afterwards being concocted and prepared, evacuated, and regard is to be had of the ſtrength, principally of the ſtomack and Liver. *Cure.*

Therefore in the beginning the ſtomack and firſt ways are to be opened and evacuated by Cliſters and lenitive medicines, or elſe the matter inherent in the ſtomack is to be ejected by vomit. *Lenitives.*

But although the cauſe of this Fever be cold, yet becauſe it is mixed with blood and putrifieth, ſome blood may be taken away by opening of a vein, in caſe that the urine be thick and red, and that the ſtrength will bear it and the age, that nature may be eaſed of ſome part of her burthen. *Opening a vein.*

Afterwards preparation & concoction of the matter is to be endeavored with attenuating things which do not heat much; therefore *Preparing and altering.*

fore in the beginning uſe Syrrup of Sorrel ſimple, with honey of roſes, Oxymel ſimple, Syrrup of Hyſop, Bittony, with the water or decoction of Maiden-hair, Sparagus, Graſs, Fennel, Hyſop, and medicines prepared of thoſe plants; alſo Spirit of Vitriol and Salt.

Purging. When any ſigns of concoction have appeared you may exhibite ſome gentle Purger of phlegm, of Agarick, the leaves of Senna and ſuch like: Hence you muſt come to ſtronger preparing and purging things, and ſo the matter which cannot be evacuated at once, is to be prepared, concocted, and evacuated at ſeveral times. And becauſe a pure continued Quotidian ſeldom happens, but that either choller or melancholy is intermixed, we are to look to theſe humours alſo, and to adde Cichory, Burrage, Fumitory, Rubarb, and the leaves of Senna.

Provoke urine and Sweat. After the greateſt part of the matter is evacuated, the remainder is to be emitted by urine and ſweat uſing ſuch medicines as occaſion the ſame.

Strengthening Medicines. But ſince that by reaſon of the duration of the diſeaſe the ſtomack and liver are eſpecially offended, things that corroborate theſe parts are to be adminiſtred, troches of Wormwood, of Rubarb, of Roſes, with the powders of aromatici roſati and diaxyaloes.

Dyet. The Diet ought to be attenuating, cutting, and clenſing, the meats therefore ought to be of good juice, eaſie of concoction, and affording little excrement. Fiſh are not proper in this Fever, the fleſh ſhould be ſeaſoned with Parſley, Fennel, Time, Hyſop, Savory, Roſemary, Cinamon. In the beginning nouriſh ſomewhat more plentifully, that the ſick may endure to the height of the diſeaſe, but when 'tis neer the ſtate abate aliment by degrees. Yet if crudities be in the ſtomack and firſt paſſages by ſparing dyet the three firſt days they may be abated and conſumed, afterwards ſuch a dyet as we have mentioned may be obſerved. In the beginning the ſick ſhould abſtain from wine, and in its ſtead uſe water and honey; yet if by cuſtom it be required, give it ſmall and mixed with water. Small beer is alſo convenient, when concoction appears, wine is more ſafely adminiſtred, whereby the concoction is aſſiſted, the ſtomack ſtrengthened, and the humours driven out by urine.

Of the Fever Epiala.

The Fever Epiala. THe Fever called the *Epiala* is referred to continued putred Fevers, which it ſelf is indeed continued and quotidian, yet

yet differs from the other Quotidians in this, that the sick at the same time endure heat and cold, and the heat and cold together are dispersed through the smallest particles of the whole body, as *Galen* teacheth *de inæq. intemperie. cap.* 8. and 2. *de diff. Febr. c.* 6.

Galen in the place newly quoted, draws this Fever from acid and vitrious phlegm putrefying; yet in his book of an unequal distemper, cap. 8. he addeth bitter choller; whence he infers that since heat and cold are perceived together in one place, it argues mixture of phlegm and choller; in another place he determines it to arise from vitreous phlegm, part whereof putrifying, excieth heat, the other not putrifying causeth trembling and cold. Yet *Platerus* refers them to intermitting Fevers, and says that *Epialaes* are generated when intermitting Fevers happen together in one and the same day, and the cold of the one beginneth before the heat of the other be ended, or moreover when intermitting Fevers concur with continued, and the heat of the continued always remains, but the intermittent Fever coming, a trembling and cold fit is occasioned. *Cause.*

The cure of this Fever differs not much from the cure of other Fevers arising from phlegm, only that it requires stronger attenuating and cutting medicines, because there is greater frigidity and crudity in this then in the rest; also though the humour it self seem to require stronger Purgers, yet the weak cannot beat them, and therefore evacuation by degrees is to be appointed. *The Cure.*

Of the Syncopal Fever.

MOreover to these Fevers belongs a Syncopal Fever, commonly called a humorous Fever, in which there is more of pituitous and crude humours then in other Fevers that are phlegmatick; and moreover a debility of the orifice of the stomack is adjoyned, whence the sick easily fall into a Syncope, especially when the Fever begins. *Syncopal Fever.*

This Fever is hard to be cured, since the sick by reason of their extreme weakness and danger of continual soundings, cannot endure necessary evacuations, and especially if the pulse be weak, small and unequal, the Fever is exceeding dangerous. *The Prognostick.*

But evacuations are most properly occasioned by frictions, as *Galen* teacheth in his twelfth *of the method of curing*, cap. 3. Clysters and Lenitives also with medicines opening the first passages only and causing no commotion of the other humours. *Cure.*

The first passages being opened and cleansed, we come to preparing and evacuating humours, as in other Fevers petuitous, and medicines to prevent the sounding fits are also to be administred.

Diet. The meats should be not much, thin as to substance, easie of concoction, and generating as little phlegm as may be, and they are to be taken often. The drink should be wine which hath power to nourish, heat and attenuate, and doth not increase phlegm. Hydromel is also good wherein Hysop hath been boiled.

Chap. XV.

Of a continued Quartane.

A continued quartan. Lastly a continued Quartane is a Fever, whose heat is indeed continued, yet the fourth day 'tis exasperated, it proceeds from melancholy mixed with blood putrifying in the vena cava.

The cause. The cause is a melancholy humour putrefying in the vena cava, hence all things that can generate melancholy and crowd it into the vena cava, and putrefie, are the causes of this Fever.

the Diagnosticks. It is known by its continued heat, raging the fourth day, without trembling fear or shaking fits going before, or sweats following afterwards, the pulse in the beginning is small and slow, afterwards great, full, and swifter then in an intermitting Fever, wherein 'tis most intended in the height.

Prognosticks. This is the rarest of all Fevers, but dangerous and far more desperate then a continued Quartane, and debilitates nature exceedingly; it lasteth till the fourtieth day oftentimes, and beyond it.

Cure. Most part of the cure is the same with that of a continued Quartane, and becaufe the humour, the cause of the Fever is contained in the vena cava, and there mixed with the blood in the beginning, those things that open the first passages being first exhibited, a vein is to be opened, afterwards phlegm is to be concocted and evacuated. Yet you should heat and attenuate more sparingly then in intermittent Fevers, but to moisten more and adde those things which may allay the heat of the putrifying humours, such as are in other cases convenient against choller.

The humour being prepared, purging is to be used, and a purge should be given the next day after the fit, which at first

should

hould be given the next day after the fit; which at firſt ſhould e gentle, but if nature order no Criſis, ſtronger may afterwards e given, Diureticks and Sudorifiques may alſo be given after oncoction, but ſuch as are not ſo hot, and thoſe given in inter-nittent Fevers; and when the ſtrength is much debilitated onfortatives are to be exhibited, prepared of Burrage, Bugloſs, Balm, flowers of Roſemary, Gilliflowers, Confection of Al-ermis, and ſuch like.

Such Diet is to be appointed as in intermittent Quartanes, *Diet.* et the diet ſhould be thinner and cool more then in intermittent Fevers, ſince that the heat is greater and the height neerer the ſe of the ſmaller ſort of wine, although it may be allowed, yet t muſt be taken more ſparingly then in intermittents, and if he heat be greater, wholly abſtain from wine.

Chap. XVI.

Of Symptomatical Fevers.

Beſides theſe continued primary Fevers which have hitherto been explained, there are yet other continued Fevers called *Symptoma-* Symptomatical and accidental, which happen upon ſome *tical Fe-* other diſeaſe which hath gone before, and which follows as a *vers.* Symptome the diſeaſe, and is taken away at the cure of the di-ſeaſe, and ſo theſe Fevers follow other diſeaſes which being ta-ken away, they ceaſe. Whence the Ancients, alſo as *Galen* teacheth, 4. *Aphor.* 73. ſaid thoſe only were fevouriſh, which were ſick without an inflammation or other diſtemper, but thoſe that did febricitate by reaſon of an inflammation of the ſide, lungs or any other part, they did not call them fevouriſh, but Pleure-tick, Peripneumoniack, Hepatick, or other ſuch like names.

But there is not only one ſort of theſe Fevers, yet the princi- *Differen-* pal and moſt uſual is that which follows an inflamation of ſome *ces.* internal part neer the heart, or which hath conſent with the heart, when from blood powred into the inflamed part and pu-trifying, vapours are communicated to the heart, and heat it; which in a Pleuriſie, Peripneumony and Angina happens as we are commonly taught. But although it cannot be denied but that from the inflamation of theſe and other ſuch like parts Symptomatical Fevers may ariſe, and that the Fevers enſuing the inflammations in accidental wounds do prove it; yet if we diligently conſider it, all thoſe Fevers which are commonly cal-led Symptomatical are not ſuch but primary.

For

Fevers accompanied.

For first putrefaction is kindled in the vena cava, whence continued primary Fever is stirred up; but because nature burthened with the weight of those peccant humours, she uses to force them as much as it could out of those greater vessels, and from a publique and Kingly seat as it were into lesser veins and smaller parts of the body, the blood with those vitious humours being diffused into those lesser parts causeth inflammation. And it is manifest by this, because a Fever for the most part precedes inflammation it doth not follow it, and oftentimes the matter passeth from one part to another, whence changes of diseases are made. Hence these Fevers are properly called by *Platerus Comitata* rather then Symptomatical, and such *Febres Comitatæ* are not only those which have an inflammation of any part accompanied with them, but also those, to which other evils are annexed, namely a Diarrhea, a Dysentery, Spots, Measles, the small Pox, wandring pains, the Gout of the joynts, or running Gout, Catarrhs. For all these evils do arise when nature being oppressed with the weight of its burthen of peccant humours, it protrudes some part of them out of the vessels.

Erysipelas or Rose.

A Fever of this kind is also accompanied, which is an *Erysipelas*, called by the Germans Rose; for this Fever doth not proceed from an inflammation of an external part, but this evil accompanies the Fever; for when the thinner and hotter blood burneth in the vessels by what means soever, putrifies, and is corrupted, and acquires a vitious quality, which principally is caused by anger, and fear, nature being stimulated protrudes the same to some external part of the body, whence this evil invadeth with a trembling and quaking, and whilest the matter striving to go outwards, ceaseth on the Glandules under the Arm-pits, and about the groin; some of the humour that is stirred up, sticks there, and pain and swellings are there perceived, till at length it manifests it self in the leg or some other external part which may be known by the heat, pain, and rosie colour.

But we do not assent unto *Platerus* in that he says that all those Fevers are simple and pure continued, and are without any putrefaction.

The Urines, that we may pass by other things, do manifestly shew putrefaction, which hath the same tokens of crudity and concoction as in other putred Fevers, and nature sometimes critically, sometimes Symptomatically, expells the matter offensive to it; for it doth not only expel by insensible transpiration and by a moist steam, which useth to be in Ephemeraes and Synochaes which are without putrefaction. Some

Some of these Fevers whether they arise from an inflammation the parts, or whether they have that as a companion, are cal- *Phlegmonides*, which principally proceed from blood; but se wnich arise from *Erysipelas* or inflamation, are called *Eru-latodes*, and inflame fires. *Differences of Fevers.* *Phlegmonides.*

To these belong the Fever that leaves fire as it were behind it, ich burneth so exceedingly, that all the interals are as it were nt, but the external parts grow cold, and that during the ble course of the disease; and this Fever ariseth from an Eri-las or inflamation of any internal part, but principally of the nack, and from blood and Spirits meeting in the part infla-d. *Typhodes.* *Lipyria.*

The second kind of Symptomatical Fevers which is called *nta*, proceeds not from any inflamation of the bowels, but some obstruction and hidden putrefaction, that is, from ter without the vessels, spread over the substance of any of the erals, or at least impacted, and putrifying in the capillar ns dispersed neer the substance of the interals, and hath its from the substance of the interal decaying; whence there is great quantity as that when the matter is gotten into larger wider vessels, vapours cannot be transmitted to the heart, so a *Febris Lenta* is stirred up, which therefore is unequal keeps no certain order. *Febres lentæ.*

This Fever is the gentlest of all, and molesteth not the sick any grievous Symptome, so that the sick oftentimes thinks self well. In the mean while the strength decayes, that the can scarce go forward, and the body is no ways refreshed by ent, but wasteth by degrees, whence sometimes this Fever ccounted with an Hectick, and therefore when there is any ition of this Fever, in the first place we must diligently search Hypocondries and Hypogastries, to try whether any tumor o be discerned in any of them; some signs of putrefaction will appear in the urine, and discover themselves in the e.

This Fever is more durable, and goes beyond the terms of o-Fevers, and often endeth not in fourty days, nor is it gone il the humour fastened to the interal be consumed.

The third sort of Symptomatical Fevers is, that which ari- from the putrefaction of any interal, from whence putred ours through the veins inserted might be sent to the heart, that, and might stir up a continued Fever, whereby the y by degrees might be extenuated and wither. And this Fe- is sometimes more violent, sometimes more mild, accord- *Fevers from putrefaction of interals.*

ing

ing as the putrefaction is more or leſs. This often happens
putrefaction of the lungs in ſuch as are Phthiſical; ſo 'tis fou
that the Caul or Kell, Meſentery, Womb, and other parts
corrupted, and thence a Fever kindled. In like manner fr
Fiſtulaes penetrating into the internal parts a *Febris lenta* be
ſtirred up, it is obſerved, that ſome do conſume and waſte.

From corrupt milk. The fourth kind of Symptomatical Fevers is when either fr
corrupt milk, which often happens in Infants, or from blood p
Putrified blood, trifying ſomewhere without the veſſels, or from worms, put
Worms. vapours are communicated to the heart, that is heated, an
Fever irritated.

To theſe may be referred that Fever which ariſeth from cru
ty, which is familiar amongſt little children from their eating
ſweet things, which hath with it a tumor and inflammation
the Hypocondries, which the Germans call *Das Herngeſpa*
from the abundance of crude humours collected in the ſtom
and neighbouring parts, which begin to putrefie and are turn
into wind.

Diagnoſtick ſigns: Symptomatical Fevers properly ſo called, are known by th
that they come after diſeaſes of private parts, and the firſt ſor
theſe Fevers is known from hence, becauſe it follows an infla
mation of ſome certain part: as on the contrary, Fevers ca
Comitatæ, firſt appear and invade with rigor and trembling,
which afterwards a Fever happens.

But thoſe *Lentæ* or ſlow Fevers are known by their ſlow he
wherewith notes of putrefaction in the urine and pulſe appe
the ſick are weak ſcarce able to go, the body waſteth by little
little, and the Fever is lengthened for the moſt part beyond fo
ty days; they are tormented by the uſe of purging. But wh
the cauſe of theſe Fevers is hidden, 'tis very hardly to be diſti
guiſhed, and therefore the Hypocondries and other internal p
are to be obſerved with great diligence, and we are to enqu
whether any tumor or pain be to be found there.

But thoſe which ariſe from the putrefaction of any part
more eaſily known, nor indeed can the corruption of the part
hidden, unleſs it be ignoble.

So that Fever which proceeds from corrupt milk or blood
eaſily known by its ſigns; as alſo that which ariſeth from cru
ty is manifeſt from their loathing things blowing up and ſwelli
of the Hypocondries.

The Prognoſtick. Although theſe Fevers in reſpect of themſelves for the m
part are not dangerous becauſe they are mild, yet in regard
their cauſes on which they depend, we ought to doubt whet

y are dangerous or not; as alſo whether they are long or ſhort; thoſe which follow an inflammation of any part are ſhort; e that the inflammation it ſelf cannot be long, but the dan- of them depends on the inflammation.

The *Febres Lentæ* are for the moſt part long, and often con- ue more then fourty days. And although not by their vio- ce yet by their duration they debilitate the ſtrength; they cured alſo with difficulty, becauſe their cauſe pertinaciouſly eres in ſome interal.

Thoſe Fevers are very dangerous and ſeldom curable which ne from the corruption and putrefaction of any part; becauſe part can ſeldom be cured.

But thoſe Fevers which proceed from corrupted milk and od, worms or crudity, are often acute and dangerous, and ng with them grievous Symptomes, as Epilepſies, Convul- ns; yet they laſt not long, neither are they hard to be cured, the cauſe being taken away they ceaſe.

The way of cure ought to be aimed at by ſtriking at the cauſe *The Cure.* ereon it depends. If therefore a Symptomatical Fever de- d on an inflammation of any part, the cure is to be directed the inflammation it ſelf, which being cured, the Fever cea- . And therefore moſt remedies which are convenient to wage inflammations are here uſeful. Yet in regard of the part ected, the way of cure ſometimes differs, the part affected is igently to be weighed: Whereof it ſhall be ſpoken in the cure particular affects.

The *Febres Lentæ* ſince they proceed from extraordinary ob- ructions of the bowels, require opening, attenuating, and erging medicines. And ſuch are to be choſen as are appro- ated to each part, and ſuch as ſtrengthen the tone of the inte- s, which for the moſt part is debilitated, yet by intervalls ttle purgation may be uſed. Neither are Diuretick to be o- itted in their ſeaſon. Externally alſo if the part affected will ar it, Emollients and Diſcutients are to be applied.

If the Symptomatical Fever proceed from the corruption and trefaction of any part, that cure is to be inſtituted which a- eeth to Ulcers and Fiſtulaes of the internal parts.

If it be occaſioned by corrupt milk or blood, Worms, or ude and corrupt meats, we are to endeavour that thoſe cauſes taken away conveniently, either by vomit or cleanſing and acuating medicines, and together to reſiſt putrefaction and vouriſh heat.

In the cure of accompanied Fevers, we are to look no leſs to the

The cure of accompanied Fevers.

the Fever then that conjunct diſeaſe or companion, and the tion of nature is not to be impeded, leaſt the peccant hu retained in the body ſhould cauſe more danger; and the although it be not profitable to hinder an inflammation 'tis beginning: Yet the humour that is the cauſe or that alſo to be evacuated, which is moſt conveniently done moſt part by breathing of a vein, which together affords tion and revulſion. Yet it ſhall be profitable alſo to emp firſt paſſages, ſince that oftentimes the matter is gather'd ther in them; and ſince the matter for the moſt part is and often makes toward the extremties of the body, and is full of malignity, 'tis conveniently expelled by ſweat.

Chap. XVII.

Of intermitting Fevers in general.

Intermitting Fevers.

After continued Fevers, intermitting are to be expla But although the Ancients did extend the name of i mittting Fevers more largely, and attributed the to all Fevers which admit of ſome change of heat, and are ſ times exaſperated, ſometimes remitted, and ſo to conti periodicks: yet afterwards uſe brought it to paſs that thoſe vers only were called intermittent, which ſometimes ceaſe come to that apurexy or want of fire.

their proximate cauſe.

The proximate cauſe of an intermitting Fever is a putred pour, elevated from the putrefaction of excrementitious mours, not continually as in continued Fevers, but by c intervalls ſent to the heart, and heating the ſame contrary to ture.

The fire place of intermitting Fevers.

But how it comes to paſs, that the putred vapour is not c nually ſent to the heart but at certain times is very obſc For the explanation whereof ſince the knowledge of the wherein putrefaction ariſeth, doth not a little conduce, whence the putred vapours are communicated to the heart, w *Galen* calls the Furnace and Chimney in his 2. *of the differe of Fevers*, cap. the laſt, and in his 15. *of the method of curi* cap. the fourth, that therefore is firſt to be explained. But ſi 'tis beyond the bounds of our Breviary of Inſtitutions to rec up the various and different opinions of Phyſicians concern it, we will here ſet down that opinion which we think tru The Chimney or Furnace and place wherein the matter cauſe of intermitting Fevers is generated; are the Meſara

ve

ins, wherein the matter which ſufficeth to irritate each ſingle roxiſm, is generated during the time of its interval. And at many things which happen about intermitting Fevers do ove; namely Loathing, Vomitting, Dolor of the heart, xtenſion and pain of the Midriffe, Intumeſcence about the ntricle, Bitterneſs about the mouth, Belching, and ſuch e; for in the beginning of intermitting Fevers pure choller is en ejected by vomit in great abundance, which out of the ore remote veins could not be evacuated in that manner, and out the cava of the Liver. *Fernelius* ſays he hath found the uantity of a pound by weight after the death of a Patient.

This choler being caſt out the Fever is often cured, which is ſign that it is the cauſe of the Fever, and that it is collected in oſe firſt ways or paſſages. Which Fomentations alſo uſed to e Hypocondries at the beginning of a Paroxyſm ſhews by the itigation of the trembling and ſhaking.

This matter is gather'd together in the Meſaraick veins a long me before it brings forth a Fever, but when it begins to putre-, grow hot, and be changed, its heat being diffuſed over the hole body it exciteth a Fever; which when it is diſperſed, the vouriſh heat and Paroxiſm ceaſeth, and the Fever leaveth ſo ng as till new matter which in like manner putrifieth in its ue time, is generated.

But although the matter which is the cauſe of intermitting evers be generated in the Meſaraick veins and firſt paſſages: et the whole doth not reſide and continue included in them, ut is ſent to the vena cava and arteries, both during the fit and ut of the ſame. Nor is it here neceſſary to ſeek for occult and lind paſſages, through which the putred vapours ſhould be nt to the heart during the Paroxiſm, ſince there are manifeſt aſſages enough; for the branches of the Gate-vein are inſerted nto the ſubſtance of the Liver, and the mouths of theſe have ommunion with the vena cava, and the arteries going from the eart are joyned in the ſtomack, guts, ſpleen and other parts to he Meſaraick veins. Yet 'tis probable that the fevouriſh mat-er may be communicated to the veins not principally and only n the Paroxiſm, but moreover ſome part thereof by that paſ-age which is from the Meſeraick veins to the Liver continually nay be carried to them; whence both by *Galen.* 1. *de criſ. cap.* 7. and other Phyſicians a Fever is called a paſſion of a venemous nature. And that is firſt manifeſt from the urines, which ſhew evident notes of crudity and concoction in Intermittents. Hence alſo it comes to paſs that urines during the Paroxiſms are lauda-

the cauſe of intermitting Fevers conteincd in the vena cava.

ble

ble and like to theirs who are well, ſince that the peccant humo is then protruded by nature out of the veins towards the circum ference of the body, and ſo the blood in the veins is become pu rer, which again in the intervals of fits is polluted by the vitiou humour proceeding from the chimney of the Fever. The ſam is manifeſt out of thoſe things which happen at the beginning o a fit, and at that time which the Greeks call Epiſemaſian; ſo then ſpontaneous laſſitudes, ſtretching, compreſſion of pulſe and other things happen which indicate that the matter which i to ſtir the Fever begins to be moved and as it were to ſwell i thoſe common veſſels, veins and arteries.

That vitious humour accumulated partly in the Meſaraic veins, partly in the vena cava when in time it putrifieth, natur ſtimulated and irritated oftentimes ſtrives ſeveral ways, firſt b vomit and ſtool, afterwards by ſweats and urine ſenſibly to eva cuate the ſame, as alſo through the pores of the skin, and by in ſenſible tranſpiration it may diſcuſs the ſame being reſolved int vapours and ſteam. For ſince that peccant humour is not exact ly mingled with the blood but confuſedly, nature may eaſily ſe perate the ſame from the good blood, and may ſhake it off eac ſingle fit; which being diſcuſſed, ſince putred vapours canno any more be communicated to the heart, the Fever alſo ceaſet and apurexie enſueth.

Cauſes of the return of fits.

But becauſe that as long as the Fever continueth ſome ſeed and ſparks are left in the granary and chimney, and ſeeing the there is imbecillity in the part, 'tis neceſſary that the humou flowing to it, although it be good, ſhould be defiled with th pollution and excrement which was left as it were with leaven and through the debility of the part be corrupted, and ſo ne matter of a future Paroxiſm be generated. And theſe fits cont nue, and ſo often return, until that thoſe ſeeds, that putrefacti on, and thoſe ſparks are fully taken away from thence, and th weakneſs of that part reſtored. Yet it ſeems probable that th whole matter which is the cauſe of a Fever doth not putrifie to gether in the firſt Paroxiſm, but that part which is apt to putre faction, in the other fits the reſt, until the whole be putrifie and conſumed.

Cauſe of fits.

By theſe things it is manifeſt both where the matter that is th cauſe of putred Fevers is generated, how it cauſeth a fit, by wha ways it is evacuated, and how the matter which is the cauſe o a new Paroxiſm is generated, and ſo the cauſe of Paroxiſms an the recourſe of intermitting Fevers is explained. But what th reaſon is why theſe Fevers return at ſet times, ſome ſooner, ſom later

later, is now another queſtion, and that moſt intricate, which is eaſier to ask then anſwer? But that we may here forbear to recite the opinions of others, which are very many, we will mention only that which ſeems moſt probable to us, ſo far as in this humane dimneſs of our underſtanding in ſo obſcure a buſineſs we are able to diſcover. And firſt, that Fevers keep ſuch certain periods, experience doth manifeſt; whereby it appeareth, that ſome Fevers return the third, ſome the fourth day, and that oftentimes it obſerves not only the ſame hour, but minute of inſaſion although the fits may ſomtimes anticipate, ſomtimes reard for certain reaſons. But the cauſe why paroxiſms return at certain times, we conceive is to be ſought from the diverſity of humours: For thoſe effects, as *Valleriola* ſaith, in any one ſort of things, which perpetually agree to the things, and are made in the like manner, into what body, and at what time ſoever they happen to come, theſe are to be referred to the proper ſubſtance of that of the which they are made; but to make return through certain days, and to irritate acceſſions, both agrees perpetually to humors and the recourſes in this manner, alwaies at equal intervals (unleſs a perverting of the order of periods happen from elſe-where) are made: Therefore it ſhall be from ſuch or ſuch a nature of humours that the recourſe ſhall be made in the ſame ſort; namely, the cauſes of periods and intermitting Fevers, are excrementitious humours. *Choler, Melancholy, Flegme*; and thoſe Fevers which return the third day, proceed from a Cholerick humour; thoſe on the fourth from Melancholy; thoſe that come every day, ſo that they are not double Tertians, proceed from Flegme.

Yet the cauſe of periods cannot be drawn ſimply from humours, but as they acquire a peculiar quality from putrefaction or corruption, by reaſon whereof at a certain time, they wax hot and begin to be moved. For ſithence this effect is definite and determinate, which carries it ſelf alike in all individuals, 'tis neceſſary that it have a certain definite and determinate cauſe in all individuals that are alike; which ſince that neither diſpoſition of parts, nor quantity of humours (for we ſee that although the ſtore of matter decreaſeth, and the fits are become ſhorter, nevertheleſs they do return at their uſual time) nor manifeſt quality of humour, thickneſs, viſcidity, tenuity, or ſome ſuch like, which uſeth to vary, can be a quality; we muſt needs fly to a peculiar and proper quality and nature of a humour; which alſo when it is changed, the form of the Fever it ſelf is changed; for when Choler is turned into Melancholy, the Fe-

ver which uſed to come the third day, cometh on the fourth and this quality alſo may afterwards remain in the humour when the putrefaction ceaſeth, and the Fever depending thereon Whence, as *Fernelius* in his 10 of Fevers witneſſeth, the tor ments of the Cholick, Pains of the Joynts, and ſuch like di eaſes ariſing after long continued Tertians and Quartans, d likewiſe keep certain periods, by reaſon of that diſpoſition whic they have received from the corruption or putrefaction of th humours.

Order of the fits

Yet if any one be willing to determine that the ſaid occult pro priety is derived, not from corruption only, but that celeſti cauſes do alſo concur to its generation, I will not much conten with him; for we ſee that principally about the Solſtices an Æquinoctials, ſuch Fevers, eſpecially the moſt durable of them do begin and end.

But although Fevers keep certain periods, yet there is a ce tain difference in them alſo; for ſomtimes the fit returns juſt the expected time: ſomtimes the following paroxiſme retur ſooner then the former; which form is called *proleptick*: ſom times the following fit comes later then the former, and th form is called *Hyſterick*; and indeed ſomtimes through th whole courſe of the diſeaſe, ſuch a form is obſerved, and ofte times from the beginning of a Fever, until the end of the ſam the paroxiſmes anticipate, or come after the expected time: bu ſomtimes in ſome there is anticipation, in ſome poſt poſitio otherwiſe the fits comes at the ſame time.

The cauſe of anticipation and coming late.

For the moſt part they ſay, that anticipation happens whe the humours by ſome error in diet are augmented, or are move by medicines, anger, exerciſe, and ſuch like cauſes. But th fits return ſlower, when the matter is diminiſhed, or thickne Which indeed when the accuſtomary paroxiſme is changed, th it may be ſo, as we do not deny; ſo when the Fever keeps a ways ſome certain form, either proleptick or hyſterick, the cau rather ſeems to be taken from the diverſity of the humour; ſo although Choler, according to its manner, being corrupted, the cauſe of a Tertian, Melancholy of a Quartan; yet Chol and Melancholy, according to the diverſity of Bodies and Tem peraments, do oftentimes vary ſomthing; Hence alſo it happen that although that putred leaven, or occult quality introduc by choler, be the cauſe of the circuit of a Tertian, Melancho being brought in of a Quartan: yet according to the differenc of a humour, it may happen ſo, that the effervеſcence, or ferve cy of humours, may come ſooner or later by ſome hours.

Concer nin

Concerning the longitude or brevity of ſome Paroxiſms that
epends on the paucity or plenty of matter, diſpoſition of the
umours and body: For a plentiful quantity of humours is the
auſe of a longer fit then a ſmall; ſo a thick humour cauſeth a
onger then a thin, ſinee it cannot be ſo ſoon diſcuſſed as a thin.
f the ſtrength of the body be great, which can more eaſily diſ-
ſs what is offenſive, then theirs who are weak; the ſhorter fit
lloweth: Alſo a thinner conſtitution of body, as being more
t for the diſcuſſing of the matter, is the cauſe of a ſhorter fit;
hicker, of a longer. And when all the cauſes which occaſion
hort paroxiſm concur, a very ſhort fit is raiſed: But when all
oſe that produce a long are preſent, the paroxiſm is extream
ng. When certain cauſes are preſent which make a ſhort fit,
d ſome are wanting of them, an indifferent betwixt both hap-
ns. *The cauſe of the length of Fits.*

And ſo much of the nature, place, and motion of the proxi-
te cauſe, which exciteth intermittent Fevers; But the more
ote cauſes, and thoſe things which conduce to the generation
d corruption of that matter in the Meſeraick veins, are meat
d drink of evil juice, but yeilding matter for peccant humours
wering to their own nature; and an ill diſpoſition of ſtomack,
ereof meats turn into choler, or become ſour, an intemperate
ſtitution of Ayr; for although divers humours are generated
different bodies naturally, yet if there be great vehemency of
nifeſt cauſes, even in bodies of different conſtitutions, they
y produce the ſame humours and diſeaſes depending on them. *The more remote cauſes of intermitting Fevers.*

As for the difference of intermitting Fevers, they proceed from
diverſity of humours; for there are ſo many ſorts of inter-
ting Fevers, as there are of humours by which they are pro-
d; for there are according to the vulgar opinion, three ſorts
xcrementitious humours, *Choler*, *Flegme*, and *Melancholy*,
ſo three kinds of intermitting Fevers, *Bilious*, *Pituitous*,
Melancholy; which differences we uſually call a Tertian in-
ittent, a quotidian intermittent, and a quartane intermit-
And in caſe thoſe humours are ſincere, pure Fevers are
rated; if they are mixed, ſpurious. And that Fever which
eeds from pure Choler, is called a pure Tertian, but that
h ariſeth from yellow Choler mixt with ſome other humour,
lled a Baſtard Tertian. *Difference.*

ut concerning a quotidian intermittent, the matter is not
ain: For *Fernelius* accounts this the rareſt of all other, and
e one of them happens amongſt ſix hundred; and that thoſe
mittent Fevers which daylie afflict, for the moſt part he rather
accounts *Of a quotidian, whether any be.*

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accounts them double Tertians: But *Platerus* flatly denies Quotidian Fever, and wholly agreeth with *Galen* 8. *Meth. me cap.* 5. where he appoints only a twofold crudity; the one n trous, the other acid: and they only seem to afford matter f two ſorts of Fevers, Cholerick and Melancholy. For althou Flegme alſo, according to preheminency, and moſt principal be called a crude humour; yet ſince it is exceeding cold, it c ſcarcely putrifie and excite a Fever.

Whether there are Quintan Fevers.

But whether there are more circuits of Fevers, and whet beſides Tertians, Quartans, and if there be any ſuch thing Quotidians, there are alſo other Fevers which are extended yond the fifth circuit, is doubtful. *Galen* ſaw no ſuch: Ne theleſs *Hypocrates*, and other Phyſitians, obſerved Fevers wh returned the fifth, ſixth, ſeventh, eighth, ninth day: But w the cauſe of this courſe is, is very obſcure. Some ſeek the c of ſuch fits out of the diverſe conſtitution of Choler and Me cholyj and *Andreas Cæſalpinus Art. Med. lib.* 2. *cap.* 15. fers Quintans to Choler, Septanes to Melancholy; and de mines ſuch ſlower returns of Fits to be a kind of renewing o or more ſimple acceſſions; and the Quintan to be a kind of T tian, wherein the third day is without a paroxiſm; and a ptan to be a ſort of Quartan, renewing the acceſſion of the ſo day. But moſt derive the reaſon of theſe circuits from the v ous mixture of Melancholy humours with others. But altho it be probable that all theſe Fevers, as keeping longer periods, p ceed from a Melancholy humour; yet a mixture of that hum ſeems not neceſſary: Becauſe no humour can be appointed u mixed with a Melancholy, which can be a cauſe of a ſlower p od then it ſelf: for thoſe humours, both Cholerick and Me cholyj are not alwaies of the ſame ſort; and moreover, the ruption alſo which they ſuffer, is not alwaies the ſame; ſo it is no wonder that the effect alſo varies, which proceeding them is not alwaies the ſame: And as in epidemical diſeaſes, times rare and wonderful corruptions of humours happen, ſo Intermittents, that ſome ſuch thing may likewiſe happen, is altogether abſurd.

Diagnoſtick ſigns.

Intermitting Fevers are eaſily known; for they come to A rexie, and at certain times; and indeed, as *Galen* 1. *ad Gla cap.* 5. 2. *de criſib. cap.* 3. *&* 2. *de diff. Febr. cap.* 3. teach they return with ſhaking, horror, or cold, For although ſomtimes Fevers do occur which ſeem intermittent, and in without any rigour, trembling, or cold; yet really they are ſuch, but only ſlow and obſcure continued ones; or in caſe

are really intermittent, they are not pure; whose Idea *Galen* propounds but spurious.

But these Fevers are less dangerous then continued; and sel- *Prognostics.*
dome, unless the strength be decayed, or in regard of age, or some other cause, or some errour committed in diet, are mortal, sithence it may be convenient during the apurexie to gather strength, and administer necessary medicines.

Concerning the cure of these Fevers in general: Since their *Indications and Cure.*
cause is collected and generated in the meseraick veins, there putrifies, and thence is diffused over all the body, and at length is discussed by insensible transpiration or sweats: But the cause of the recourse of the Fever, as *Galen* teacheth, 2. *de Febr. cap.* the last is a twofold vitious disposition in a body, the one a certain pollution or putrifaction left after the former paroxisme; the other imbecility of the member or part, generating excrementitious humours; what therefore is to be done in each sort of Fever, easily appears from hence.

For sithence the beginning of generation and corruption of *Purging*
humours producing a Fever, is in the first passages, we are to endeavour to purge out that peccant humour, before it corrupts the rest of the blood, and brings weakness, and a vitious dispotion to the parts; but we must proceed warily in those evacuations, since there is not the same reason of all intermitting Fevers: For when that vitious and excrementious humour, the cause of a Fever, in the meseraicks is mixed with blood, crudity also, and concoction, according to their manner are necessary; whereby the vitious humours may be separated from the good, and rendred fit for evacuation: and that often happens in a short time in Fevers full of Choler, and the cholerick humour is otherwise apt enough to motion: But in a Quartan the humour is more stubborn, and moreover according to *Galen* 1. *ad Glau. cap.* 11. no strong medicine is easily to be admitted at the beginning.

And Sudorifiques are not at all (or altogether) to be used, un- *Sweats*
less evacuations have preceded; for if many vitious and excrementitious humours do hitherto abide in the first ways, it may easily come to pass that by reason of hydroticks untimely exhibited, they may be detruded thence to the more noble parts, and may become the cause of various and grievous evils, and such as may bring more danger then the Fever it self.

As for breathing of a vein, 'tis not indicated from the prima- *Letting blood.*
ry cause of intermitting Fevers, which is generated in the meseraick veins, where the greatest part abideth: Yet because that

ſomtimes blood alſo abounds, which may eaſily be corrupted an polluted by the vitious humours, and ſo if it be too plentiful cannot be well governed by nature when it is weakned by a Fever; and in the progreſs of the diſeaſe, from thence ſome of th peccant matter palleth into the vena caya, and is mixed with th blood, it is ſomtimes needful to open a vein, which nevertheleſ is not to be appointed preſently in the beginning, before the eva cuation of the primary paſſages.

If the Fever be not cured by theſe evacuations, we are to en deavour that the cauſes of the returns of fits may be taken awa and moreover two things remain to be done; namely, that th diſpoſition and weakneſs of the part generating vitious humour may be taken away, which is performed by altering medicine which together correct the fault of the humour, and diſcuſs th pollution, and thoſe ſeeds which were left out of the putrifact on of humours; and indeed that paroxiſms depend on that po lution, and that when it is taken away the Fever ceaſeth, a peareth from hence, That whilſt that is driven by nature to t circumference of the body, out of the veins, and that Puſtul are raiſed about the lips, noſe, and other parts of the face, t Fever ceaſeth

Wann der Mundt oder die Naſe auſs ſchiaget.

But 'tis principally taken away by Sudorifiques; yet there a alſo certain other medicines known both to Phyſitians and to th vulgar, which take away feveriſh fits, and therefore are called F *Febrifuga.* *brilia, Puretagoga,* and ſuch as ſpecifically cauſe, and are call The flight of a Fever, or *Febrifuga,* which nevertheleſs cauſe ſweat, but without doubt ſome other way take away that ſe and by conſequence the paroxiſm, ſuch as commonly are accou ted the powder of burnt ſhells of Cockles or Snails or of the Pe bearing ſhels, or mother of pearl calcined, of River Crabs, and pri cipally their eyes, which are ſo called prepared, and ſuch like: B how they perform this, is not explained by Authors. That I m ſpeak my own opinion, ſuch like medicines ſeem by a certa precipitation to take away that force of heating and ſtirring up paroxiſm which is in the humours, to which Opiats ſeem to b long: yet ſuch like cannot be given ſafely, unleſs the vitio humours, and thoſe things which may afford the reaſon of t antecedent cauſe be firſt taken away; for otherwiſe thoſe thin which may be expell'd by nature when it is irritated in a pa xiſme, are left in the body, and afterwards may become the cau of a Chachexie, Dropſie, Jaundies, Cholick pains, and of oth grievous evils.

External

Externally alſo are applied certain medicines to cure intermitting Fevers, of Cobwebs, oyl of Spiders, and certain veſicatories, which without doubt, that which they do, is performed by drawing out, and evacuating of that Feveriſh corruption and pollution. *Topical Medicines.*

Chap. XVIII.

Of Intermitting Fevers in particular, and firſt of an Intermitting Tertian.

After we have handled intermitting Fevers in general, we will now go through them in particular; amongſt them the moſt frequent is a Tertian intermitting, which ariſeth from Choler putrifying in the meſeraick veins. *An intermitting Tertian.*

But there is a certain difference of theſe Fevers; for firſt, Choler it ſelf out of which theſe Fevers are generated, is not of the ſame kind; for ſomtimes the choler is like to that natural choler which afterwards is collected in the Galls bladder; ſomtimes it is preternatural green and æruginous, ſuch as ſomtimes by thoſe that are Feveriſh, is evacuated by vomit or ſtool. Moreover, Choler either putrifies alone, or elſe hath ſome other humour mixt with it; Flegme or Melancholy that cauſeth a pure, this a baſtard Tertian. They differ alſo in reſpect of duration; for if the fits are not extended beyond twelve hours, they are wont to be called pure tertians; but in caſe the Fit be extended above twelve hours, they are no more called exquiſite and pure tertians, but either ſimply tertians, or ſpurious tertians; and when the paroxiſm is extended above twenty four hours, they are called extenſe tertians; but this is occaſioned either by the thinneſs or thickneſs, plenty or paucity of the humour. For by how much the Choler is thinner or leſſer, by ſo much the ſooner 'tis diſcuſſed, but by how much the thicker, or more mixed with thick humours, or the more plentiful, by ſo much the longer the paroxiſm continueth. *Its difference.*

The cauſes of this Fever are all thoſe things which can generate excrementitious choler, namely a hot and dry diſtemper; hot conſtitution of ayr, eating of hot meats, and drinking of hot drinks, uſing of hot medicines, watching, faſting, labour, and too much exerciſe: For although that in the Liver alſo yellow choler may be generated, yet it is very often generated by the errour of the firſt concoction, and fault of the meſeraick vein; therefore whether much choler be generated in the ſtomack by rea- *The cauſes generating, Choler ſigns of a true Tertian.*

ſon of meats, or by default of the ſtomack, and is carried to t meſeraick veins with the chyle, and there is heaped up, and length putrifieth, a Fever is kindled.

If the cauſes generating Flegme and Melancholy be annexed thoſe that generate choler, ſpurious tertians are bred.

A pure Tertian: This Fever preſently invadeth, if it be pure, with a ſhaki fit, as it were pricking the fleſh; afterwards when the cold ceaſeth, preſently much heat followeth, ſharp and biting, and its vigour is extended equally over the body, whence the ſick dra their breath much, and are troubled with thirſt. The pulſes the beginning of a fit are little, weak, ſlow, and thin; but t fit increaſing, they become vehement, ſwift, frequent, and in ſo meaſure hard, and void of all inequalities beſides Feveriſh. Wh the fit comes to the height, and the ſick drinks, many vapours a ſent through the skin, vomiting of choler followeth, which o tentimes uſeth to happen after the cold fit alſo, the belly is looſe ed, choler is piſſed out, or ſomtimes more then theſe happen. A terwards a ſweating out of hot vapours enſueth over the whc body, and the pulſe is ſwift, great, vehement, ſuch as theirs u to be who are over-heated by exerciſe. The Urine is of a lig red, or deep yellow, and afterwards hath a white cloud or ſuſpe ſion. The fit laſteth not above twelve hours, and the cau which generate melancholy, have either gone before, or are th preſent.

A ſpurious Tertian. A baſtard tertian is known from the cauſes which do not g nerate pure choler, but to gather Flegm or Melancholy: T heat is not ſo ſharp as in a pure tertian, but more mild, neith is it preſently diffuſed over the whole body. Neither is this F ver diſſolved by vomitting of yellow choler, or by ſweat, but ce tain vapours go out in the declination, and if any ſweats com forth, they either are not univerſal, or if they are univerſal, th cure not the Fever. The Urine is not ſo fiery as in a pu tertian, and the ſigns of concoction do not appear ſo ſoon in i The pulſe in the beginning is hard, and that hardneſs increaſe daylie, until the ſeventh paroxiſm, then by degrees it becom ſofter, and the Urines alſo appear more concocted. The par xiſm is often extended to eighteen hours and more: yet ſom times, to wit if the matter be leſs, and Nature ſtrong, it is lik wiſe terminated in twelve hours. It endeth not in ſeven fit but often endureth till it comes to fourteen, and ſomtimes t twenty.

Prognoſticks. But theſe Fevers are leaſt dangerous amongſt all the putr ones 4. *Aphor.* 43. and ſuch as are pure, do not long continu bu

t at ſeven fits they are accounted at the height, 4. *Aphor.* 59. mtimes they are terminated at the third or fourth fit; but ſpu-ous tertians, as they are more frequent, ſo they continue long-: for although if the matter be little, and neceſſary medicines e timely exhibited, they ſomtimes ceaſe at the fifth or ſeventh roxiſm, yet for the moſt part they ſcarce end at fourteen fits, d are often lengthned out to the fortieth day; ſomtimes they ntinue ſix moneths, and end with ſome diſeaſe of the Liver or leen, or elſe are alſo cheriſhed by them.

Although Tertians for the moſt part are not dangerous, yet mtimes they become pernitious. Firſt, If any errour be com-itted by the ſick, or the Phyſitian. Secondly, If the humour ich Nature endeavours to expel, ſhould fall upon any princi-part. Thirdly, If the humour be exceeding thin, putred, filthy. Fourthly, If a thin humour have a thick one mixed th it, and ſtir the ſame, and enflame it. Fifthly, If a thick mour poured out by heat, either fall down into ſome principal rt, or cauſe a dangerous Catarrh, or Aſthma, or the Gout, or w the womb into conſent. Sixthly, If the humour acquire malignant quality.

But in the cure of this Fever, as alſo in others, regard muſt be d of the Fever, the cauſe and nature of it; the Fever indi-es cooling and moiſtning things, the ſame Choler alſo, as be-g the cauſe requireth, which alſo ought to be evacuated: yet if other humour be mixed with it, altering preparing and eva-ating medicines, which that humour requires, are to be mix-; and becauſe the abundance of the matter is in the meſeraick ins, the vitious humour is to be purged out of them, and if ed be, prepared before it infect the good blood: afterwards o it is to be altered, and the diſpoſition of the part generating ccant humours to be corrected. Laſtly, We muſt endeavour at the pollution and putrifaction may be diſcuſſed by Sudori-ues. *Indicati-ons and Cure.*

Firſt therefore, the firſt paſſages are to be cleanſed, either by lyſters, or lenitive Medicines exhibited of the Syrup of Roſes lutive, Manna, Caſſia, to which alſo we may add Rhubarb, garick, the leaves of Senna, according as the quality of the ccant humour requires. Vomits alſo convenient may be giv-, eſpecially if the ſick be troubled with pain in the heart, loath-g, and a deſire to vomit: And ſince the matter conſiſts in the eſeraick veins, and that nature her ſelf at the beginning of the roxiſm ſtrives to expel it either by vomit or ſtool, the Phyſician ght to be obſervant to it, and to eject the matter, if Nature endea- *Purgers.*

endeavour to expel it by ſtool or vomit; and becauſe the mat
for the moſt part in the firſt paſſages is either more abundant,
hath thick humours mixed therewith, there is need not only
lenitives, but thoſe medicines alſo which we lately mentione
nay ſomtimes of ſome of the Electuary of Fleawort or Fleaba
of the juice of Roſes, Roſati Meſuæ: Yet care muſt be tak
that we do not draw the humours out of the veins into the fi
paſſages.

Opening a vein. Concerning the opening of a vein, although Choler reſidi
in the meſeraick veins do not require it, yet if there be ſtore
blood, and the peccant humour out of the firſt region of the b
dy have penetrated the vena cava, which may be diſcerned by t
thickneſs and redneſs of the Urine, and if the party be ſtrong,
vein may be breathed; and moreover note, that not at the fi
invading, but afterwards, Phlebotomy is to be uſed: Yet t
gard of the Fever is to be had; for if it be a pure Tertian, whi
uſeth to be ſhorter, a vein is to be opened more timely, if it
required, becauſe if it be referred till after the third fit, the d
eaſe comes to its height; but if it be a baſtard tertian, you m
defer it till after the third paroxiſm, namely, becauſe more of t
morbifique matter is then mixed with the blood in the vena c
va; but blood is to be taken away in leſs quantity in a pure Te
tian; becauſe as in continued Fevers that is not the prima
indicant, and the ſtrength cannot bear the taking away of a gre
er quantity, blood may be taken away more ſafely, and in grea
abundance in a ſpurious tertian: But the opening of a vein
moſt conveniently appointed during the intermiſſion.

Preparatives. Afterwards thoſe medicines are to be exhibited which bo
correct the qualities of the cholerick humour exceeding, where
it is troubleſome to nature, and alſo the vitious diſpoſition in t
part generating excrementitious humours, and ſuch as are co
trary to that pollution which remains after putrefaction; ſuc
are cooling and moiſtning things, which together have a power
purging the firſt ways, and of reſiſting putrifaction; ſuch a
Cichory, Sowthiſtle, Endive, Sorrel, Barley, the four great, an
four ſmall cold ſeeds, the juice of Citron or Limon, and medi
cines prepared out of theſe, Syrup of Sorrel, Acetoſa ſimple
Oxyſauliarum, Syrup of Cichory, Endive de acitocitate citr
with waters and decoctions of the ſame, to which in ſpurious te
tians we may adde thoſe things which are proper for Flegme an
Melancholy, the roots of Fennel, graſs, aſparogus, aſarabecc
polypodie, carduus benedictus, centurie the leſſer, wormwoo
ſcolopendrium, betony, the ſpirit of vitriol and ſalt is profitabl
cream of Tartar, Tartar vitriolated.

But amongſt thoſe medicines there are ſome which by a certain peculiar force are ſaid to oppugne Tertians; amongſt which notwithſtanding for the moſt part manifeſt cauſes may be rendred for it: ſuch are Sowthiſtle, Camomil, Century the leſſer, Plantane, Divels bit. *Specificks.*

Altering medicines being given, if the Fever be more pertinacious, ſomtimes purging and vomiting are convenient, which for the moſt part are to be adminiſtred on the intermitting day; but if it be advertiſed that the matter during the paroxiſm doth incline towards the ſtomack, or tend downwards, it is lawful even when the fit is preſent to adminiſter vomits, or a gentle purge, yet ſo that before the beginning of the paroxiſm the operation may be paſt, in caſe a purge be given. *Purgers.*

Amongſt the vomits, Aſarabecca and Broom are principally commended; amongſt the purges, Rhubarb; to thoſe that are ſtronger, the Electuary or Fleawort or Fleabane, Elect. Roſatem, Meſne, and of the juice of Roſes may be given in ſpurious Tertians; Agarick or Senna may be added, in whom it is alſo neceſſary to repeat preparatives and purgations.

The body being ſufficiently purged, the remainder is to be taken away by Diureticks: In a pure Tertian an Emulſion of the four great cold ſeeds is profitable, made with the whey of Goats milk, or the water of Barley, Strawberries, Cichory. In a ſpurious, a decoction of the roots of Graſs, Sparagus, Fennel, Maidenhair, and Parſnips, Bindweed, flowers of Camomil and Wormwood are convenient. *Medicines cauſing of Urine.*

But principally the Phyſitian ought to imitate nature, which at the end of the paroxiſme uſeth to move ſweats, and ſhould diſcuſs the Reliques of the vitious humours by ſudoriferous medicines given either before or after the paroxiſm; and indeed in pure Tertians, wherein nature uſually cauſes ſweat in the end of the fit, it often ſufficeth that the ſick drink only Barley water, or the water of Sorrel, or Carduus benedictus may be given with the Syrup of the juice of Citron or Limmon. In ſpurious, hotter medicines are to be uſed, ſuch as hereafter ſhall be mentioned amongſt malignant Fevers, which being given ſome hours before the paroxiſm, often prevents or cures the ſame. *Sweats.*

If the Fever be not cured with theſe remedies, and that there be any ſigne of viſcous matter, and that the Liver and Spleen are likewiſe affected, regard thereunto muſt alſo be had; and ſince the Liver for the moſt part in baſtard Tertians is obſtructed by thick choler, or choler mixed with thick humours, which polutes the blood, thoſe things which cleanſe the body from choler *Corolorative.*

are

are to be uſed; to which purpoſe Wormwood is very good to uſed, which hath a force of deterging choler, and bringing av the ſame by ſtool and urine, as alſo hath century the leſſer, T ches alſo of Wormwood, of Rhubarb, Gentian and ſuch like alſo profitable; care alſo muſt be taken of the Spleen and S mack, if they are debilitated.

Febrifuga. There are certain other medicines given ſomtimes, which called Febrifuga, of which 'tis ſpoken in the fore-going chapt

Topical Medicines. And beſides theſe, there are yet others, which are externally plyed to the body to cure Fevers; namely, a plaiſter of cobwe with unguento populio, the leaves of Shepherds pouch, nettl crowfoot, and other veſiccatories.

Diet. Concerning Diet, in a pure intermitting Tertian, the ſa diet uſeth to be kept for the moſt part as in a continued Tertia they are to abſtain from honey, ſweet things, and all thoſe thin which ingender choler, wine is not to be drunk before concoctio but when the notes of concoction have appeared, you may uſe ſo it be thin and watry; meat is to be given when the paroxi is paſt, unleſs Syncope imminent perſwade the contrary, *Ga* 10. *Meth. Med. c.* 5.

In baſtard Tertians two things are principally to be obſerv concerning diet; firſt, that the diſeaſe by too plentiful a d may not be increaſed. Secondly, that the ſtrength by too ſlend a diet may not be debilitated, which ſhould hold out moſt in long diſeaſe; and therefore the magnitude of the diſeaſe, and t greatneſs of the ſtrength are to be compared one with anothe and in caſe the ſtrength be greater, and the matter harder to concocted, the thinner diet is to be uſed, but the larger diet, the ſtrength be weak, and the matter eaſier to be concocted. Th drink ſhould not only cool and moiſten, but alſo cut, and then fore it may be mixed with Hyſop and wilde Marjerom, and water ſweetned with honey be exhibited, Vinegar being then unto added, that Choler may be thereby corrected.

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Chap. XIX.

Of a Quotidian Intermittent.

A Quotidian Fever

The ſecond ſort of intermitting Fevers is that which proceeds from Flegm, which becauſe it takes them every day, is called a quotidian. *Fernelius* writes that this is the rareſt of all Fevers, and that which ſcarce happens once amongſt ſix hundred: Nay there are ſome who plainly deny it: and although many are affected every day, yet they are ſick of a double Tertian, or treble Quartan.

The cauſe

The cauſe of this Fever is thence it is Flegm putrifying in the meſeraick veins, all thoſe things may be cauſes of this Fever, which conduce to the generation of Flegm, namely, weakneſs of the bowels, eſpecially of the ſtomack, heat, cold and moiſt aliment, and too great plenty of them.

Diagnoſtick ſigns.

This Fever is known by the cauſes generating Flegm which went before, and alſo by the ſigns of Flegm abounding in the body, explained in *lib.* 3. of *Inſtitutions part.* 2. *cap.* 2, This Fever chiefly comes to invade in the night, only with coldneſs of the extreme parts, and trembling: The heat after refrigeration ſlowly invades, ſo that ſomtimes heat, ſomtimes cold is perceived; and the heat at the firſt doth not ſeem ſharp, but habituous; yet if the hand put thereunto continue ſome time, it appears a little ſharp, and when it is diffuſed over the whole body, it doth not burn much, ſo that the ſick do not breath extraordinarily, neither are they very thirſty: The face is not very red, but for the moſt part yellowiſh, or a little puffed up; the eyes in the beginning are white, thin, and crude; afterwards when the matter is concocted, they become thick, troubled, and oftentimes alſo red. In the firſt paroxiſms alſo they ſweat not, but in the progreſs of the diſeaſe they ſweat a little; the Pulſe alſo is exceeding little, thin, and more then in Quartans, but equally ſlow; the paroxiſm is extended to eighteen hours, and the interval, which is ſix hours, is ſeldome pure and free; nay 'tis often extended to four and twenty hours.

Prognoſticks.

But how long this Fever ſhall continue, may be conjectured by the ſigns of concoction appearing ſooner or later in the Urine, and by the longitude and brevity of the paroxiſm; for if nature timely aim at ſome evacuation, it affords hopes of ſhortneſs of the diſeaſe: But this Fever as being that which ariſeth from a pertinacious humour is long, and continueth unto forty days three

three moneths or more, and is not without danger; and w the Stomack and Liver are much affected with it, the ſick are ten caſt into a Dropſie and Cachexy.

The Cure The cure for the moſt part is the ſame with a Quotidian c tinued; for the pituitous humour is to be prepared and evac ted, to wit, the firſt paſſages are to be opened with Cliſters commodated to the pituitous humour; breathing a vein is ſca uſed, but a Vomit is more uſeful then in any other ſort of Fev becauſe the ſtomack is principally affected, but 'tis to be occ oned by ſeed of Radiſh, Orach, of Dill, flowers of Broom, thoſe that are ſtrong, with Spurge, and others that are ev where known.

Preparers. The Flegmatick humour is to be prepared with convenie medicines; the opening roots, Hyſop, wilde Marjoram, Beto Mayden hair, Agrimony, Groundpine, Camomil, and ot things convenient for Flegm, Syrup of Sorrel ſimple and co pound, Syrup of the two and of the five Roots, Honey of Roſ Syrup Byzant, ſimple and compound, of Hyſop, Oxymel ſim and compound with Squills, ſpirit of Salt and Vitriol.

Purgers. The matter in the firſt place being prepared, it ſhould be ev cuated with Agarick, Mechoachan, Turbith, Troches of Alha dal, Elect. Indo Diaphænico, Diacarthamo, pills of Hieca, wi Agarick, and ſuch like.

Movers of Urine and ſweat. Sweat and Urine alſo ſhould be provoked with medicines ma of Fennel, Carduus Benedictus, Saliſa Parilla, wood of Saſſafra Treacle, and Mithridate; and laſtly the Bowels, but eſpecial the Stomack and Liver are to be ſtrengthned.

Chap. XX.

Of an Intermitting Quartan.

A Quartan. THe third ſort of intermitting Fevers which ariſeth from Melancholy humour putrifying in the meſeraick veins, an ſeizeth on the fourth day alſo, whence it is called a Quarta

The cauſe The proximate cauſe of a Quartan Fever is a melancho humour collected in the meſeraick veins about the ſpleen and ad jacent Bowels, and there putrifying, and that ſomtimes natura by its own nature cold and dry, and ſomtimes it participates wit ſome aduſtion; But the more remote cauſes are, all thoſe thing which conduce to the generation of black and melancholy hu mours, namely meats and drinks apt to generate this humour amongſt the which is vineger, of the which *Hypocrates* 3. *vic rat*

in acut. t. 38. writeth, it attenuateth melancholy humours, ſeth them, and frames many viſions in the mind: For Vine- is a Leader or ſtirrer of Melancholy. The time is princi- ly in Autumn, eſpecially if a hot Summer have preceded.

This Fever is known by its quartane circuit, and ſigns of *Signs.* lancholy abounding in the body, and it invadeth with a cer- unequal diſturbance of the body, the which a cold ſhaking ſolloweth, which at the firſt is little, or at leaſtwiſe inſtead reof there is at the firſt refrigeration and horrour, in the pro- ſs of the diſeaſe the cold paroxiſm is alwaies greater, and at gth moſt vehement with pain, cauſing the bones to knock to- her. The heat is kindled by degrees, neither is it burning, ſomwhat milde. The pulſe is thin and ſlow, and although he vigour of the paroxiſm it become ſwift and frequent, yet ompariſon of Tertians it is thin and ſlow. The Urines at are thin and white, but in the progreſs of time higher co- ed and thicker. Sweats in the beginning are not frequent, but he progreſs of the diſeaſe plentiful.

And thus things are in a pure quartan, but in a baſtard one ns of ſome humour mixed do appear, and heat, thirſt, watch- , and other ſymptomes are more grievous.

This Fever continueth the longeſt of all other, and oftentimes *Progno-* ot only extended to ſome moneths, but years; and if it be *ſticks.* gone by the next ſolſtice or æquinctial, after it was firſt ta- it laſteth for the moſt part till the next after, and for the t part goes away in the Spring. 'Tis ſafe and without dan- if it be legitimate, and without any diſeaſe of any of the els: But that which is joyned with black choler is more dan- us, as alſo that which is with ſome grievous diſtemper of of the intrals, and caſteth the ſick into a dropſie, the ſcurvie, conſumption.

As concerning the cure, if this Fever proceed from a pure me- *Indicati-* holy humour, that ſince 'tis cold, dry, thick, 'tis to be moiſt- *ons* and attenuated, or if it be alſo aduſt, it is in ſome meaſure cooled, afterwards to be purged with convenient medi- .

The cauſes generating are to be removed, and in caſe other ours are mixed, regard muſt be had of them. The Fever it ndicates cooling and moiſtning; yet regard of the ſtrength be had, leaſt by the duration of the diſeaſe that be impair- as alſo of the ſtomack, ſpleen, and liver, leaſt they are of- d.

This Fever is to be handled gently at the firſt, neither are *Cure* ſtrong

ſtrong medicines to be uſed at the beginning of cure, fither melancholy humour may be exaſperated by the uſe of them out of a ſimple Quartan, a double or treble may eaſily be *Galen* 1. *ad Glauc. cap.* 11. yet there is leaſt danger in Vom

Opening a vein. The firſt paſſages of the Body therefore are firſt to be evac with cliſters, lenitive medicines, and vomits alſo; afterwar caſe blood abound therewith, a vein is to be opened; and i it iſſue forth black and thick, the greater quantity is to be that by this means both the plenty of blood may be dimin and that part of the melancholy humour which is poured o to the vena cava may be evacuated; but if the blood co forth appear to be thin and yellow, 'tis forthwith to be ſto And indeed where there is ſtore of blood (the firſt paſſages cleanſed) a vein may be opened; but if this Fever begin out ſtore of blood, a vein is not to be breathed preſently beginning, but when ſome of the peccant humour is drawn the veins, and mingled with the blood: The Baſilick or m vein either may be opened, moſt commend the opening Salvatella; yet they have not as yet rendered any ſufficient ſon why that ſhould be preferred before others.

Preparers. The blood being evacuated, the peccant matter muſt be p red and concocted, and likewiſe that diſpoſition of the bod generate vitious humours is to be corrected: And indeed, in a Quartan Fever proceed only from natural melancholy, m ning things are to be firſt uſed, but heating things ſhould be moderate; but if aduſt humours are mixed, there will be things moderately cooling, but in the progreſs of the di there will be need of cutting and attenuating medicines: I pituitous humour be mixed therewith, in the beginning will be need alſo of attenuating and cutting things, and it be more ſafe to heat a little: Hence are to be adminiſtred, rage, Bugloſs, Violets, Maidenhair, Cichory, Fumitory, rach, Hearts-tongue, Germander, Ground-pine, Carduus dictus, the Roots of Marſh-mallows, Licoras, Chichory, opening roots, Polipody, Gentian, Fern, the barks of Tam Capparum, Roots of Walnut Trees, Flowers and ſeed of Bo of the Vine, Aſh, Citron, juice of Apples, and compoun theſe, and ſomtimes this or that may be choſen or mixed ding as the nature of the peccant humour requireth.

Purging Medicines The concoction and evacuation of the matter muſt be by tervals repealed, and when the matter is in ſome meaſure red, purging medicines are to be prepared of Polipody, Ep num, leaves of Senna, roots of Jalop, black Hellebore, la

L

lazuli, and compounds of these Syrup of Apples, Regis Sapor, lectuary called Diacatholicon, Confection of Hameck, with he compound powder of Senna and Diasenna, Tartarious pills, r pills evacuating melancholy of lapis Lazuli, Armoniack, beinning with the more milde or gentle ones.

A Vomit also is convenient, by which oftentimes pertinacius Quartans are cured: So *Galen* of Treacle *ad Pisonem, cap.* 5. the day before the fit, after Supper he gives a vomit, the next ay after early, the juice or dilution of Wormwood, and two ours before the paroxism, Treacle; the gentler Vomits are of he decoction of Dill and Radish with Oxymel; the stronger are Sarabecca, and Gratiola, or Hedge-hysop; The strongest were ade by the Ancients of black Hellebore; at this day such medines are made of Antimony. *Vomits*

If the Hemorrhodes can be opened, there will be much good xpected thereby; seeing that the flowing of these, preserves and ees a man from many diseases arising from adust and melancho- humours. The opening and preparing things before menti- ned, may also cause Urine. *Hemorrhodes.*

Moreover, for the discussing the reliques of the matter after urging, and that the matter is concocted, sudorifiques are to be hibited an hour or two before the paroxism. *Galen* hath two edicines in use for this purpose; the one ex succo Cyraniaco, d Treacle, which is also in use at this day. 'Tis profitable to e the use of Gentian, Carduus benedictus, Antidotus Saxoni- so called, and such like. *Sudorificks.*

To these belong those medicines also which may help by a cerin propriety, or hidden quality, whereof notwithstanding a reason may be given for the most part; to wit, such as may dis- ls and consume the reliques of the humour, and strengthen the owels: such are the juice of Wormwood, Vervain, Roots of asterwort, Plantane. Others also commend other medicines, nich for the most part provoke sweat likewise, and may safely be hibited in due season. *Appropriated medicines.*

But Opiates, and such like, which only have power to check e fit, are not alwaies safely to be administred, because they onstupifie the expulsive faculty, and dull it, and prohibite the deavours of nature, and hinder the motion of the matter, and e humours offending being detained in the body, may cause her evils. Fruthermore above the wrists, and where the pul- beat, may be applied those things which we have mentioned fore amongst the Tertians. *Hindring the fits.*

In the mean time we should alwaies be careful of the interals;

and endeavour that they may be ſtrengthned, and that the ſ
may not be obſtructed, ſwell, or become ſcirrous and hard
which often uſeth to come to paſs.

Mitigati- Amongſt other ſymptomes, for the moſt part cold ſhakin
of cold fits. are moſt troubleſome to the patient, which may be mitigate
the giving of Treacle or Mithridate before the paroxiſm, an
nointing of the ſpine of the back with oyl of Camomil,
Coſtus, Rue, Pepper, Bayes, with Treacle and Mithridat

Topical things. Alſo there ſhould be applied to thoſe parts that principally
riſh the Fever, and which are eſpecially troubled with pain du
the time of the fit, plaiſters, fomentations, and unguents,
cially to the ſpleen, and thoſe to be made of Marſh mallows,
marisk, Broom, Dill, Camomil, Armoniack, Bdellium.

Diet. As concerning diet, it ſhould be meat of good concoction,
eaſie digeſtion, and no ways apt to generate melancholy
mours, but rather ſuch as may hinder the increaſe of them.
meat therefore ſhould be moiſtning and heating in melanch
and if an aduſt humour be mixed therewith, it ſhould be ſ
what cooling, yet ſo, that it may not be deſtitute of power
and force to attenuate that which is thick; the meats alſo mi
with Burrage, Bugloſs, Fennel, Parſly, Capers, Cinamon, Saffi
and ſuch like. Meats affording thick and viſcous juices m
wholly be refrained. If a Quartan ariſe of it ſelf without
preceding diſeaſe, at firſt a little thinner diet is proper, then
ſomwhat thicker is to be uſed, and at laſt towards the height
little thinner is to be again adminiſtred: But if a Quartan
ceed another diſeaſe, at firſt diet a little thicker is to be taken,
afterwards by degrees towards the height, ſomwhat to be detr
ed from that: And in caſe the ſick will endure it, let him
that day his fit cometh, or at leaſt ſix hours before the paroxi
let him eat nothing, according to *Hypocrat.* 1. *Aphor.* 11.
19. For meats then given, afford not any nouriſhment to
body, but to the diſeaſe: And many Quartans, as alſo Te
ans are prolonged, not by their own nature, but by errors in di
eſpecially becauſe the ſick either in the fit, or newly before it com
do not abſtain from meat and drink.

Their drink ſhould be white wine, thin, mature, and not
ſtere, or Beer that hath worked well, and is not flatulent;
the wine and beer may be mixed with herbs good againſt the
lancholy humour above-named.

Quintan Fevers. Fevers which have longer periods, and return on the fifth
ſeventh day, or afterwards, ſince they all proceed from a mel
choly humour, or melancholy declining into a black and ad
humo

humour, or have a black humour mixed, as is manifeſt from the duration, and other ſymptomes, there is alſo the ſame reaſon of curing them as of Quartans: yet what the nature of the humour is, ought diligently to be obſerved.

Chap. XXI.

Of Compound Fevers, and Semi-Tertians.

Fevers compounded.

Beſides theſe ſimple Fevers hitherto mentioned, there are yet Compound Fevers, which is, when one Fever is complicate with another. They are divided into confuſed and explicite.

Confuſed

They are commonly called confuſed, when two Fevers begin and end at the ſame time, ſo that they can ſcarcely be diſcerned; namely, when ſeveral humours confuſed amongſt themſelves, putrifie in the ſame place, and each or every of them preſerves its own proper nature; which nevertheleſs how it might be done, ſcarce ſeems poſſible: But implicite are thoſe that are ſo joyned together, as that the nature and ſymptomes of either of them ſeverally and peculiarly may be known.

Implicite

That complication happens many ways; for firſt, a non-putred is joyned with a putred, as a hectick with a putred; moreover a putred with a putred, and that ſeveral ways; for firſt, continued are mixed with continued, and intermittent with intermittent; and that either of the ſame ſort, whence there are double Tertians, double and treble Quartans; or different, but that is rarer, as a Tertian intermitting with a Quotidian intermitting, and a Tertian intermitting with a Quartan intermitting, continued Tertians with intermitting, when a Tertian intermitting with continued Quotidian, or an intermitting Quotidian with a continued Tertian is mixed, which Fevers are called Semi-Tertians.

Three ways of compoſition of Fevers.

There are three ways of compoſition of Fevers, and three differences of compounded Fevers; Subintrante, Coalternate, and Communicant.

Subintrante are, when the fit of the one Fever begins before the termination of the other: Coalternate, when one paroxiſm being ended, by and by after a ſhort interval, another begins: Communicant are ſuch whereof the paroxiſme of the one doth begin forthwith after the end of the other, there being no interval.

Compound Fevers are known by the ſigns of ſimple Fevers,

Signs of Compound Fevers. and principally by the returns of cold tremblings and ſhakings a ter reſt; and in caſe a cold fit happens, and ſweat do not follo afterwards, or that one ſweat happen after many fits. The pul alſo if in a continued Fever it be often contracted, motion of ne matter, and of a new paroxiſm, and ſo 'tis a token of a compou Fever.

Prognoſticks. But theſe Fevers are for the moſt part more dangerous th others, ſince that they more afflict the patient then ſimple, a a ſet time for their paroxiſms is for the moſt part wanting, a eſpecially in caſe the compound Fevers conſiſt of ſeveral humour and they are more difficult to be cured, ſeeing thoſe things th are accommodated to one humour, are not fit for another.

Cure But their cure depends on the manner of cure of their ſimple and to every humour and Fever that is kindled, thereby are to b exhibited their oppoſite remedies.

But that we may ſay ſomthing of compound Fevers, we wi add ſomwhat concerning a double and treble Tertian and Qua tian, and likewiſe of a Semitertian

A double Tertian. A double or triple Tertian is cauſed by choler putrifying i two or three places in the meſeraick veins; and indeed, if chol putrifie in two places, a double Tertian is made, which afflicte either every day once, or in one day twice, that the next day a

A treble Tertian. ter the ſick may be free from the fit: But in caſe it putrifie three places, a treble Tertian ariſeth, which in the ſpace of t days afflicts thrice, one day once, the other day twice. Nay ch ler may putrifie in four or five places, and more, and ſo many, ſuch Tertians then will enſue.

A double Quotidian. A double Quotidian is cauſed by Flegme putrifying in t places, and invadeth the ſick twice in the ſpace of four and twen hours.

A double Quartan A double Quartan is cauſed by a melancholy humour putr fying in two places; and thoſe that are troubled therewith, a one day free from a Fever, and the two next are troubled with i But ſuch as are troubled with a treble Quartan, are Feveriſh ev ry day; Nay, 'tis not impoſſible but that thoſe that are tro bled with a compound Quartan, ſhould be affected twice in o day.

A treble Quartan And indeed a double Tertian is often ſuch from the beginnin but a double or triple Quartan for the moſt part from the untim ly uſe of medicines, eſpecially of hot ſodorifiques, 'tis become ſuc becauſe the crude matter is only ſtirred up, but not diſcuſſed, b diſperſed over more parts.

Cure A compound Tertian and Quartan is cured as other Tertia a

and Quartans are: yet this is to be taken notice of, that the meats or medicines may be uſed at fit times in regard of the paroxiſme.

As for a Semitertian which by the Greeks is called a Semitertian fire, 'tis compounded of a Tertian and a Quotidian, the one continued, the other intermittent, and indeed principally of an intermitting Tertian, and continued Quotidian, and hath its continuity from Flegm, its horrour from intermitting, as commonly 'tis taught; whence theſe are alſo called horrid Fevers. But although I ſhould not deny that humours putrifie together in the vena cava, and the meſeraick veins, and that from thence there may ariſe complicate Fevers, which have various exacerbations and mutations in their ſymptomes; yet it ſeems not abſurd to call thoſe Fevers alſo Semitertians, which by their nature are indeed intermitting Tertians, yet when 'tis joyned with an inflammation of any Intral, a ſymptomatical continued Fever is ſtirred up; for when the Feveriſh part of the matter is thruſt out with the blood into the Guts, Stomack, Liver, and parts adjacent, an inflammation is cauſed, and thence a continued ſymptomatical Fever, which being complicate with an intermitting Tertian, conſtitutes a Semitertian, which in reſpect of the intermitting Fever is horrid, in regard of the ſymptomatical continued. That which Phyſitians obſervations teach us, by whom 'tis found out, by the diſſected bodies of ſuch as have died in Semitertians, that there are inflammations about the hollow parts of the Liver, as alſo in the Stomack, Guts, Meſentery, Kell or Cawl, Spleen; Whence 'tis eaſie to give a reaſon of a trembling or ſhaking fit in this Fever; for it happens ſomtimes ordinately, according to the nature of the intermittent Fever; ſomtimes inordinately, when the inflammation ſeizeth on ſome new part, or when quitture or purulent matter is made; according to *Hippocrates*, 2: *Aphoriſm.* 4. 7. Somtimes malignity happens to be joyned with theſe Fevers, and then for the moſt part they are popular, and there are many affected therewith. *Semitertian.*

This Fever is known, and if it be according as it is commonly deſcribed, compounded of a continued Quotidian, and an intermitting Tertian, by the ſigns of each Fever; for a continued Fever on the one humour, daylie brings a paroxiſm, but the other every third day, and ſo in one day there will be two fits, in the other but one. See *Galen.* 2. *de diff. Febr. cap.* 7. But if it proceed from an inflammation of any Intral adjoyned, ſigns of an inflammation are preſent, and together therewith *Signs.*

the intermittent Fever keeps it likeneſs; malignity, if it be p
ſent, is known by its ſigns.

Prognoſticks. This Fever is altogether dangerous, both in regard of its co
tinuity, and of its ſymptomes, as alſo of its inflammation
malignity.

Cure. The cure thereof depends either on the cure of an intermitti
Tertian, or a continued Quotidian, or on the cure of a ſin
or double intermitting Fever, and of an inflammation of
trals.

The Third Book.

Of a Hectick Fever.

Chap. I.

Of the Nature of a Hectick Fever.

A Hectick Fever.

And ſo theſe things of putred Fevers are handled, and conſequently the firſt ſort of Fevers, whoſe heat according to inclination, diſpoſition, or habitude, is in the living parts of the body; It ſtill remains that we ſpeak of Hecticks, wherein the Feverish diſtemper becomes as it were habitual, and ſo poſſeſſeth the living parts of the body, that although it be fottered by no cauſe, yet nevertheleſs it can ſubſiſt without it.

Cauſes

There are two things neceſſary for the generation of this Fever, aptneſs of the ſubject to receive and entertain preternatural heat, and a continual and vehement action of cauſes heating and introducing Fevers. An apt habit of body to take this Fever, is a hot and dry body, whether it be natural, or from what cauſe ſoever it proceed.

Manner of generation.

Theſe Fevers are generated two ways; for either they follow other Fevers, whether burning or laſting, when their heat is vehement; or being durable, it poſſeſſeth all the parts, and conſumes their moiſture; or they ariſe from themſelves, and from evident cauſes, which if they are weaker or lighter, they produce Ephemeraes; if ſtronger, they bring forth Hecticks.

Differences.

But there are certain degrees of a Hectick Fever: The firſt is, when the rotid humidity is dried. The ſecond, when the fleſhy and fatty ſubſtance periſheth. The third is, when the heat likewiſe invadeth the fibrous parts: And indeed when the rotid humidity only grows hot, and is not as yet conſumed, 'tis called a Hectick without a Conſumption; but when that humidity is conſumed and dried up, 'tis called a Hectick with waſting or maraſmodes.

A Hectick alſo is ſomtimes ſimple and alone, ſomtimes 'tis joyned with putrifaction.

Chap. II.

Of the signs of a Hectick Fever.

Diagnostick signs.

A Hectick Fever is known by its continual heat, causing r pain, as being equal; and Hectick which indeed at t first touch is weak, afterwards it appears sharper: It is pe ceived more in the Arteries then the other parts: And more ver, the heat after taking food, within an hour or two is incre sed, and the Pulse either is changed, as to greatness or swiftnes yet so, that its ascending appears strong and free, and none those things precede which forego the fits of putred Fevers mo commonly; and this mutation of pulse and heat, endures unt the aliment be distributed. The pulse also in this Fever is li tle, frequent, and moderately swift; and by how much the mo the strength receiveth this Fever, by so much the more the bod is consumed, and the strength debilitated, so that the sick ca scarce list up the eye-lids, and together with it in the secon place, fatness in Urine swims like cobwebs. Lastly, The sam things which appear in an hippocratical face, as 'tis described b *Hippocrates*, are also discerned in a marasmodes or Hectick, wit wasting.

Signs of differences.

Signs of a Hectick with a Putred.

A Hectick with a Putred, and an Intermittent conjunct, i known from hence; That the fit declining, the heat nevertheles although remiss, some is left thereof, and there is great languish ing of the strength, and all the other parts are more temperate only the parts where the arteries are become hotter, and the pul loseth not its swiftness and frequency, and the sick takes food, bu is not strengthned thereby. A Hectick joyned with a continued putrid Fever, is difficult to be known; yet it may be known from hence, namely, because the dry calidity remains after th end of the declination, or of the whole Fever, or its periods; and the body is more extenuated then otherwise it useth to be, th Urine also becomes oylie, as may appear.

Prognosticks.

It is hard to know a Hectick in the beginning of it; 'tis not so difficult to cure at the first: but that which is neerer to wast ing, or a consumption, is easily known, but hardly cured, and at the last it becomes plainly incurable.

Chap. III.

Of the Cure of a Hectick Fever.

Laſtly concerning the cure: The hot and dry diſtemper indicates cooling and moiſtning, the ſtrength requires preſervation, and whatſoever of the humid and ſolid parts is conſumed and dried, is to be reſtored with moiſtning things; and indeed moiſtning things are more ſafe; but in giving cooling things we muſt be cautious, leſt that the native heat already being weak, ſhould by that means be extinguiſhed. But if a Hectick Fever have a Putred one joyned therewith, the Hectick cannot be cured, unleſs the other Fever be firſt taken away. *Indications and Cure.*

Medicines cooling and moiſtning are, Violets, Burrage, Buglos, Waterlillies, Roſes, Endive, Succory, Mallows the four greater cold ſeeds, Poppy. Out of which ſeveral medicines for preſent uſe may be prepared. *Medicines*

Externally, A Bath of fair water may be uſed moſt profitably, which *Galen* 10. *Meth. Medend. cap.* 10. Which that it may moiſten the more, Mallows, Violets, Bearsbreech may be added: is convenient alſo to uſe a Bath of warm milk. After the Bath, the body be anointed, but principally the ſpine of the back, with oyl of Violets, ſweet Almonds, Water lillies, Roſes; Cooling and moiſtning medicines may be alſo applyed both to the breaſt and Liver, as alſo to the Reins. *External things,*

But the greateſt hope of cure conſiſteth in Diet: The Ayr ſhould be temperate, or moderately cold: Meats ſhould be cooling and moiſtning, eaſie of concoction, and of good juice, having in them few excrements, and ſuch as is not preſently diſperſed. In the firſt place Milk is profitable, which as *Galen* 4. *de Comp. Medic. Facult. cap.* 17. teacheth, 'tis cold and moiſt, eaſie of concoction, of the beſt nouriſhment, and hath great power of moiſtning and refreſhing the ſubſtance of our bodies; which leſt it ſhould be coagulated in the ſtomack, ſome Sugar or Salt ſhould be mixed therewith; and it ſhould only be taken in ſuch a quantity as may well be concocted by the ſtomack. Strengthning and Reſtorative Broths are alſo profitable, of which is ſpoken elſe-where, as alſo food of Almonds, Pine, and Pick nuts, the four greater cold ſeeds, and of white Poppy. *Diet.*

But meats in ſuch as are ſick in Hecticks, ſhould be given in ſmall quantity, but often, by reaſon of the imbecility of their ſtrength. Their drink in our Countries ſhould be Ale or Beer,

Beer, or Water and Wine, white and ſweet. Their ſleep ſh
be ſomwhat longer. If a Putred be joyned with a Hectick,
muſt endeavour that the Putred Fever may be firſt taken a
yet the Hectick not to be neglected, leſt that whilſt we uſe
medies only for the Putred Fever, the Hectick may be enc
ſed; if we uſe means only to cure the Hectick, the Putred
be increaſed.

The Fourth Book.

of the Plague, and of Peſtilential and Malignant Fevers.

Chap. I.

Of the Nature of the Peſtilence.

HItherto we have finiſhed the eſſential differences of Feyers; it remains that we now ſhould ſpeak of the accidental. Amongſt which, the principal and moſt neceſſary to be known, are thoſe that enfold the Peſtilence, peſtilential Fevers and malignant.

What the Plague is.

And indeed concerning the Plague, with which, although not waies, yet moſt commonly a Fever is joyned; That name is oſt noted to be attributed to the moſt pernitious and deſtruive of all others: But what the nature of that diſeaſe is, mongſt Authors is much controverted. For firſt of all, ſithence rious and ſeveral kinds of diſeaſes and ſymptomes may appear the Plague: Yet becauſe they are alſo often perceived without e plague, the nature of the plague is not to be placed in ſo may diſeaſes and ſymptomes differing in ſpecie, but in ſome pecur ſort: Nor doth the being epidemical or contagious, conitute the nature of the peſtilence, ſince other diſeaſes alſo may universal and contagious.

The plague a diſeaſe of the heart

But ſince that this is granted by all, that the Plague ſpreads oſt, when many are infected together with the ſame diſeaſe, nd they die, and others are infected: Hence it may eaſily apar, that the plague is primarily a diſeaſe of that part on the hich life depends chiefly, and the which being hurt, a man is very great danger of his life, namely the heart, the fountain life, and ſtore-houſe of vital heat: For although the humour herein the venome inhereth may ſubſiſt in divers parts (whence e ſame diſeaſes and ſymptomes in every peſtilence are not the me to appearance) yet in what place ſoever it ſubſiſteth, it hath a pe-

a peculiar antipathy with the heart, and thereby deſtroyeth a m ſo ſuddenly.

Whether the nature of the plague conſiſt in putrifaction.

But from whence that force and quality ſo miſchievous inimicous to the heart, hath its original, and dependeth, of there is a very great controverſie amongſt Phyſitians; and deed, ſome do conceive that the Peſtilence only conſiſteth of trifaction, and conclude, that by putrifaction the nature of Peſtilence may be conſumed. But becauſe they themſelves knowledge that all putred Fevers are not peſtilential, they ſtr variouſly to determine it in putrifaction, and that they div ways ſtrive to explain, but all in vain. Whatſoever theref putrifaction is concluded to be, it ſufficeth not to conſtitute peſtilence; for there are meaſures and degrees of putrifaction ſo whatſoever they are, ſince that they differ only according *magis* and *minus*, they differ not in their kind, neither do th ſeparate the plague from the reſt of the putred Fevers. Moreo the Plague hurteth in another kind then a putred Fever doe for it ſpreads it ſelf for the moſt part in a moment, and brin forth pernicious effects, it diffuſeth it ſelf in an aſtoniſhing ma ner, and into whatſoever it enters, a very little of the peſtil venome may lie hidden any where a long time, and remain whol and afterwards be taken into the body, and on a ſudden produ ſuch grievous ſymptomes, and brings forth ſuch effects as n not in the power of the primary qualities, on which the grou of putrifaction depends: Moreover, if the plague ſhould pr ceed from putrifaction only, a Fever alſo would never be witho the peſtilence: yet ſince it is obſerved that a Fever is without t plague, as out of *Hippocrates* 3. *epid. comm.* 4. 25. 55. *Ga de ſimp. med. facult. de terra Armenia. Fac. de partib. in quarti Avicen. cap. de Febre Peſtilent. Alex. Benedicto, M Valleriola loc. comm. lib.* 3. *c.* 18. and out of others it is mat feſt. Laſtly, the way of cure is far different from that of oth putred Fevers, and the peſtilent poyſon indicates and requires lexipharmall means, which in other putred Fevers are neith indicated nor have any place.

Therefore we have determined that the plague doth conſiſt a hidden quality, and in its nature wholly adverſe to the hea and that the peſtilential poyſon is endued with ſuch a quali which by the effects of it, as we lately ſaid, beyond the prim qualities doth prove.

Contagion is joyned with the peſtilence, and peſtilential po ſons have always contagion joyned with them as a proper ac dent, becauſe it belongs to all plagues, but not only to the plague.

Therefo

Therefore we define the peſtilence to be a venomous diſeaſe of the heart, from venomous matter, and in its whole ſubſtance peculiarly adverſe to the heart, and gotten by infection, and therefore is of it ſelf infectious, and ſuddenly and joyntly hurting all the actions of the heart, very acute, deadly, introducing deſtructive ſymptomes of all ſorts. *Definition of it.*

But what the ſpecifique nature of this venome is, and what its differences are in divers conſtitutions peſtilential, no man can eaſily explain. To me it ſeems probable to be the higheſt degree of corruption, which indeed the humours in our bodies can poſſibly receive; to which through many alterations, mutations, and fermentations it comes, and into which diſeaſes which went before, at length degenerate: Whence it comes to paſs, that when the Plague reigns, other ſporadick diſeaſes that come not by ordinary means, and all benigne diſeaſes for the moſt part are ſilent, and thoſe epidemical diſeaſes that reigned before ceaſe.

Chap. II.

Of the cauſes of the Peſtilence.

Concerning the cauſes of the Peſtilence, or this great corruption, they are twofold; ſome of them generating the Peſtilence, others propagating the ſame, which are comprehended under the name of contagion. In the former rank are Ayr, ſtars, courſe of Diet, Poyſons, imagination and terror. *A cauſe*

For firſt, Ayr ſomtimes contains in it the ſeeds of the peſtilence, which when by drawing in the ayr by our breath, men draw in that therewith, and ſo the peſtilence is ſtirred up in them, and that when it happens, moſt grievous peſtilential conſtitutions are occaſioned, and is far more pernitious then to thoſe to whom the contagion of the plague is only transferred. Ayr becomes peſtilential, when there is in it exceſs of heat and moiſture, which diſpoſe bodies to putrifaction; ſuch a conſtitution of ayr *Hippocrates* deſcribeth 3. *epid. comm.* 3. yet the Plague may be bred alſo without ſuch a conſtitution of ayr, and that very corruption it ſelf is not terminated in the primary qualities; but is neceſſary that certain occult qualities, and that ſomwhat divine, mentioned by *Hippocrates* ſhould concur, but it takes its venenoſity and peſtilential quality firſt from heaven, whilſt that the ayr by a peculiar influence from the ſtars, whether it be ſo diſpoſed in the firſt qualitie, that it ſhould putrifie and be corrupted, or in an occult manner alſo it be ſo diſpoſed and affected, *Ayr.*

that

that in it poysonous seeds are generated, which in their whole substance are adverse to man.

To which thing Astrologers teach, that *Saturn* doth principally act his part. Moreover the Ayr may receive its pestilential seeds from the caverns of the earth, whilst from thence venomous steams exhale, being generated in the ayr long pend up before; to which purpose Earthquakes much conduce, which move venomous steams in that manner, and open ways for their evaporation; so out of a chest which hath been long shut, being opened, the plague cometh forth, as *Julius Capitolinus* hath noted in *Vero*: The same may happen in standing pools and lakes, and corrupted waters in Wells. Lastly, Histories inform us, that the ayr hath been infected by the carcasses of such as have been slain, and by the corruption of multitudes of dead locusts.

Secondly, although the stars by corrupting of the ayr may be the cause of the pestilence whilst they so corrupt it, as that the pestilence which is contained in it, the seeds or sparks being communicated to man, they excite the plague in him: yet by itself also, by affecting of mans very body, they may cause the plague, whilst either they dispose the ayr so, that whether by manifest or occult qualities, 'tis rendred not fit for the preservation of mankind, but corrupteth the humours therein, so that they become of a pestilential nature; or also proximately and immediately by occult influencies, they corrupt mans body, and principally the humours and spirits contained therein; concerning which thing Astrologers are to be advised with.

Common Diet.

Thirdly, Pestilential venome may be generated from common Diet. That which often happens in a long dearth of provision in Camps and Sieges, where men are compelled to make use of corrupt and unwholsome meat, by reason whereof ill humours are generated; which being detained in the body, are more corrupted, and at length become pestilential; as Histories sufficiently testifie.

Poysonous things.

Fourthly Unguents and venomous powders being spread abroad may cause the plague, being that which by mischievous persons hath been done and committed, as histories again inform us: yet if any one would refer this kind of cause to contagion or infection, we will not contend with him.

Imagination.

Fifthly, The cause is imagination, terror, and fear; and experience hath taught us, that some whilst they have beheld those that were infected with the plague, or dead of it, or seeing some go out of a house that was then infected, by reason of too much

terror and fear, have fallen sick of the plague: I have observed the same to proceed from anger.

CHAP. III.

Of Contagion.

AND these are the causes, by means whereof the pestilent poyson may be generated in the ayr, or in mans body; yet it often comes to pass, that neither the ayr, nor evil diet, nor any of the rest of these causes have stirred up the pestilence, but otherwise from elsewhere being brought into some place by contagion, and afterwards by contagion also it is diffused into more places. For although there are other diseases contagious also, yet the plague is the most infectious of all others. *Infection.*

Contagion is a production of the like diseased or sickly affect in another body, by pollution sent out from a diseased body, but there are three things required to perfect contagion: A contagious body it self that may infect others, a disease or an affect contrary to nature, which is communicated to another, and the body which is infected.

First, a contagious body is that which whilst 'tis sick of any disease, diffuseth not the disease it self (for the actident goes not out of the subject) but some of the morbifique cause out of it self, and communicates it to another, and so in this manner excites the same disease in it. For that which is communicated to another from out of a contagious body, is not the disease it self, but a certain body flying out of the diseased body, and received into another, having power of stirring up the same in it. The Greeks call it *Noseras apocriseis*, and *aporroias*, and *miasmata*: The Latines, the pollutions and seeds of contagion; and since that we see that such seeds have not only hurtful qualities in the smallest quantities, and that they easily insinuate themselves into the body, but also they endure a long time, and retain their strength entire, and they are most exactly mixed, and are some way spirituous, and 'tis necessary they should owe their store of strength by some occult quality. *Infection how many ways it is spread.*

But contagion is not scattered after one manner, for somtimes it goes out by breathing, somtimes through the pores of the skin, or in the form of vapours, or of sweat and filth adhering to the skin, and is communicated to other bodies. And this seed goeth out most plentifully from an infected body, when the poyson is too strong for nature, and overcomes it, which happens in those that are dying.

The

The ſeeds of contagion are communicated either by immediate contact, or by ſome medium and vehicle. This vehicle is twofold; ayr, and ſome fewel, as they call it: Ayr, when it receives the ſeeds of contagion from infected bodies, it can carry them to places nigh, yea and ſomtimes more remote places. That hath the nature of fewel in it, which can receive the ſeeds of contagion, and communicate the ſame to another; which kind of bodies are thin and porous, as Flax, Cotton, Feathers, the hairy skins of animals, and garments made of them, feathers alſo of birds, and birds themſelves; and it is found out for truth, that thoſe peſtilential ſparks have often lain hid in the cinders or aſhes; and it may come to paſs, that any one may carry the ſparks of it about him in his garments, and not be infected, and yet they being moved and ſhaked, may infect another.

But the ſeed of a contagious peſtilence when 'tis received into a body, it brings in that diſpoſition with it wherewith the body from out of which it came was afflicted, and that for the moſt part ſuddenly, yet ſomtimes it is found to lie hid ſome days in the body before it denudates it ſelf.

Thirdly, Concerning the body that receives the peſtilent treaſury, although no man can promiſe to himſelf immunity from the peſtilent venome, yet it is certain ſome are more eaſily, ſome more hardly infected. The cauſe whereof without doubt conſiſteth in ſome peculiar occult quality of the heart, by the power whereof it hath or hath not ſtrength to reſiſt the venomous peſtilence; yet becauſe the venomous quality is not transferred without a ſubject out of the infected body into another, it will more powerfully inſinuate it ſelf if it be received into a body proportionable and like unto that wherein it was generated, whence kinſmen are ſooner affected then others. Yet there are alſo other things that occaſion the more facile reception of the peſtilence; for ſuch as breath ſtronger, and ſuch as have wide and open pores of their bodies, eaſier take in the ſeeds of the plague, inhering in the Ayr, or any place apt to retain it.

CHA

CHAP. IIII.

Of the ſignes of the Plague.

MOreover concerning the ſigns, that I may ſay nothing of approaching ſigns, deſiring brevity, but only by what means it may be known we will ſpeak. Indeed the plague when many have been infected, may eaſily be known; but before many have been overſpread thereby, there is ſcarce any pathognomick ſigne by which it can certainly be known, that one or a few being affected are ſick of the plague; afterwards when more are viſited, it is not ſo difficult to be known, eſpecially when all ſporadick diſeaſes for the moſt part are ſilent: For firſt, the plague ſeizeth on many, and the moſt it kills. Secondly, 'Tis contagious, and eaſily given to others, and 'tis more contagious then any other diſeaſe. Thirdly, by its violence it deſtroys the ſtrength, and principally the vital ſpirits. Whence fourthly, when little, frequent, and unequal pulſes are made, palpitation of the heart happens, lipothymie, ſyncope, and great anguiſh and perplexity altogether. Fifthly, If the diſeaſe be protracted, and the venome corrupt the humours, evils and ſymptomes happen of all kinds, and the whole order of the body is diſturbed; Fevers happen, divers wheals or puſtules, buboes, carbuncles; yet if there are no puſhes, bubo, or carbuncle appear, we muſt not therefore conclude that the ſick hath not the plague; for it often happens that before they come out, and can be drived out by reaſon of the debility of nature, the ſick die with the violence of the diſeaſe. There happens likewiſe other ſymptomes of all ſorts; for when the ſtrength of the body is debilitated by the vehemency of the poyſon, the humours and ſpirits are corrupted, the excrements are changed, and the urine either becomes crude, or fully corrupted, the ſweats are ſtinking and unſeemely, filthy, fœtid, ill coloured excrements proceed from the belly, the qualities of the body are variouſly changed, and there is nothing at all in burning and malignant Fevers, which may not appear likewiſe in the peſtilence: But there is no diſeaſe at all to which the Aphoriſm of *Hippocrat.* 19. *ſect.* 2. doth more agree: for oftentimes when the plague flatters moſt, it brings unexpected death; and on the contrary, thoſe that have ſeemed deſperate, often recover when paſt hope.

Diagnoſtick ſigns;

Prognoſticks

But there is the more hopes when tumors come forth ſuddenly in a place that is not dangerous, and after their coming forth the

ſymptomes abate, alſo if the wheals are of a good colour, and with remiſſion of ſymptomes; if medicines, meat and drink are not vomited up again, if ſweats come out with lightſomneſs to the ſick, and other ſigns are diſcerned, which uſe to be preſent in ſalutary Fevers.

But the greateſt danger is, when tumors come not enough out, and carbuncles draw near to the heart, or vaniſh again; if giddineſs in the head, watchings, a coma, or convulſion fits are preſent, if the ſick ſhall ſay every thing ſtinketh, if trembling of the heart, fainting of the ſpirits be preſent, if all things are thrown up by vomiting, if the extremities of the body wax cold, if the ſweat be cold, if the excrements are of divers colours, black, and ſtinking, and if the other ill ſymptomes of malignant Fevers be preſent.

CHAP. V.

Of preſervation from the Peſtilence.

Preſervatives.

But becauſe 'tis ſafer to prevent the Plague, then being preſent to expel it out of the body, we ſhould therefore be careful firſt to prevent it. The way of preſervation (with Gods aſſiſtance, which we ought to ſeek by prayers) conſiſts in two things.

The firſt is, That all thoſe cauſes that may occaſion the ſickneſs may be avoided.

Furthermore, that the force of thoſe cauſes when they cannot be avoided, may be broken, and our bodies rendred leſs apt to entertain them, and more able to reſiſt them.

Firſt therefore if the Plague reign any where, all commerce with the infected is to be avoided, and if any one be certainly infected, he ſhould be ſeparated from the reſt with all his houſhold-ſtuff, indeed for many weeks, and the houſe infected (as hereafter ſhall be ſhewed) cleanſed; and in caſe it be doubtful whether any one be ſick of it or no, 'tis better to be too cautious then careleſs.

But if the peſtilence be now ſown in any place, 'tis ſafeſt to remove from thence, according to that common verſe,

Mox longe tarde, cede recede redi.
Forthwith far from it go,
Returning come back ſlow.

The reaſons of which do not prove that he ſhould change his place, the aſſiſtance of God being implored, he ſhould often uſe medicines

medicines againſt poyſon, and fortifie the body with thoſe things that reſiſt contagion, as alſo he ſhould endeavour that his body ſhould be free from all excrements, and preſerved in its natural ſtate.

Purging. And that we may begin *a poſteriore*, the body is not to be raſhly weakned with ſtrong medicines; yet if any vitious humour ſhall be in the body, leſt that the force of the Alexipharmacal medicines ſhould be debilitated, or the venomous poyſon ſhould eaſily take root in the body, it is to be purged by little and little with lenitives; to which purpoſe the moſt profitable are pills of Ruffi, ſo called from the authors name, and by cuſtome called Peſtilential pills; out of which alſo is made the Elixir proprietatis, oyl of Vitriol being thereunto added: Syrup of Roſes ſolutive is alſo profitable, and Rhubarb, Agarick, and medicines compounded with them, which are every where extant. If blood abound, it may be abated by opening of a vein.

Diet. The Diet ought to be ſuch, whereby vitious humours may not be cumulated; and with meats and drinks moſt principally things good againſt poyſon ſhould be mixed; and alſo, if as it may eaſily happen, any of the vitious humours be cumulated, let them be purged by the ſaid medicines.

And foraſmuch as Fontanels take away excrementitious humours by little and little, and hence take away the proviſion for the plague, they alſo in peſtilential times are profitable.

Mediocrity alſo is to be kept in exerciſe and reſt, ſleeping and waking, and the paſſions of the mind, and principally as much as 'tis poſſible, intentive thoughts of the plague, and fear of the ſame is to be ſhaken out of our minds.

Beſides theſe, two things more are yet neceſſary for our preſervation from the plague: Firſt to take heed that none of the peſtilential ſeed be attracted; Furthermore, if that happen, we being ignorant thereof, our bodies ſhould be fortified againſt it.

The Ayr how to be purified. Firſt therefore we ſhould endeavour that the Ayr wherein we live be pure; and therefore firſt publike places are to be cleanſed from all filth, and the ayr ſhould be purified with fire, principally of the wood of Juniper, Oak, Pine, Bays, and odoriferous plants being kindled; furthermore, every one ſhould avoid company, and therefore ſolemn and frequent meetings are juſtly forbid by the Magiſtrate. The windows likewiſe towards places infected ſhould be kept ſhut, and the ayr (as I newly ſaid) with burnt woods, or with vinegar bezoarted, being poured upon hot bricks, or with ſuffumigations, or with pyrion powder kindled, ſhould be purified.

How every man ought to fortifie himself against the Plague.

No man should go abroad until the Sun be an hour or two high, neither fasting, nor unarmed with alexipharmacal things, therefore balls of Amber, Nodules, sweet Limments mixed with Treacle, oyl of Rue, Zneczedoaric, Angelica, Citron, Juniper, and such like should be held to the nostrils, and under the tongue convenient troches should be held, cordial bags should be applied to the region of the heart.

Amulets

Amulets likewise of poysonous things are commended by many, as Arsnick, powder of a Toad, Quicksilver and such like being prepared, descriptions whereof are every where extant: which whatsoever they do, without question they perform in such manner, that they draw the venomous poyson to themselves, by the similitude of their own substance, and turn it from the heart; as those that are wounded with a Scorpion, with the oyl thereof being externally anointed, are forthwith healed: yet you must take heed that those bags, or mass of such things be not heated by motion, lest the strength of the poyson should be communicated to the heart through the pores of the skin.

Alexipharnicks.

But the greatest hope of health and security, is in medicines that resist poyson, out of which those are to be selected which by long experience have been approved; The simples are, Angelica, Valerian, Tormentil, Carduus Benedictus, Sorrel, Dittany of Crete and white, Rue, Swallow-wort, Scordium, Scabicon, Divels-bit, Burnet, Olsnicium, Fluellin, Vipers-grass, Marigolds, Wormwood, Tansie, Zedoary, Masterwort, Gentian, Juniper berries, Walnuts, Hartshorn, Bolealmanick, Terra sigillata, an Emerald, a Hyacinth.

Out of which are various compounds; amongst which those that excel, and are approved by long use, are Mithridate, Treacle and Confectio Liberantis, as also that antidote which is ascribed to King *Mithridates*, of which *Pliny lib.* 23. *cap.* 8. as also Theriaca Diatessaron, to which the moderns have added many more, as the Electuary of Saffron, or of an Egg, as 'tis called, Dioscordium, Tracastory, Antidotus Saxonica, Antidotus Guidonis de Cauliaco, Pulvis Cæsaris rubeus, and Gryseus Electuarium Camphoratum Kigleri, and many more, which the Tracts of divers Authors concerning the pestilence afford such as are profitable, as well for preservation from the Plague, as for the cure thereof; so that it becomes us to be more solicitous about the choice of them, then the store of them here: And amongst so great plenty, 'tis more safe nevertheless to depend on those that have been approved by long use and experience, then such as are newly invented, what colour or pretence soever they afford themselves.

ſelves. But becauſe thoſe ſtrong and hot medicines are not proper for women with child, nor children, they ſhould have medicines of Harts-horn, the bone of the heart of a Stag (or Deer) the roots of Tormentil, Pearl, Bole Almenick, Coral, Bezor, and precious ſtones: And ſince that there is no ſmall difference amongſt Alexipharmacal Medicines according to the qualities they have beſides their occult ones, every one of them doth not agree with every age and ſeaſon: for in a hotter Ayr, medicines that are not ſo hot are to be uſed; which muſt alſo be obſerved in thoſe which in regard of their age or conſtitution of body are hotter, leſt that humour ſhould be kindled, and a Fever from thence ariſe afterwards; or if ſome are hotter, they ſhould be prepared with Vinegar, or taken with Syrup acetoſ. Citri, Sorrel great or ſmall, Pomgranates.

For there is no depending upon one medicine againſt poyſon, but they are to be varied, leſt that nature ſhould be accuſtomed to it, and thereby can receive little benefit by it.

Chap. VI.

Of the Cure of the Peſtilence.

Cure.

If in any diſeaſe in the world, certainly in this an exact way of cure is to be uſed, ſince that the ſmalleſt fault being committed by any, may become an irreparable damage: But becauſe the right reaſon of Cure depends on indications, and ſeeing that the Plague is an occult diſeaſe, and its nature conſiſts in an occult quality, which by its peculiar force is miſchievous to the heart, and is very contagious; but that is introduced by a cauſe endued with the ſame quality; Hence 'tis manifeſt, that that occult quality indicates a medicine alexipharmacal contrary to it, and ſhews that the cauſe in the body, whether taken by breathing in, or contact, or by what means ſoever contracted, ſhould be removed and eradicated; But how that ought to be done, is controverted amongſt Phyſitians.

Breathing a Vein.

For firſt, ſince that neither Phlebotomy, nor Purgation are indicated by the peſtilence, quatenus 'tis the peſtilence, whether they are to be uſed or not is controverted.

First, Concerning the opening of a Vein, ſince that it neither cures the diſeaſe, nor takes away the venome, nor the cauſe, 'tis rarely to be uſed, and in that Peſtilence which is occaſioned by evil Diet, 'tis wholly to be omitted, as alſo in that which ariſeth from a peſtilential conſtitution of Ayr, unleſs there be very

great ſtore of blood which muſt be diminiſhed, and its heat mitigated: But if the Plague come by infection, and there be that plenty of blood as may cauſe us to fear leſt that a putred Fever ſhould happen, which may become no leſs dangerous to the ſick then the Plague it ſelf, or that it be obſerved that the blood flows violently to inconvenient places, and that the ſtrength is rather oppreſſed by its plenty, then diſſipated, you may breath a Vein, yet only bleed what the ſtrength can well bear with; and that ſhould be in the beginning, for when twelve hours or more are paſſed away, 'tis ſafer to omit bleeding, becauſe the ſtrength being debilitated with the violence of the poyſon, it cannot well bear it. Concerning the place for breathing of a Vein, ſuch a place is to be choſen, as may help the motion of Nature, not hinder it, and may together divert the peſtilent matter from a noble part; Therefore if a Parotis break out behind the ears, or a Bubo under the Arm-pits, or a Carbuncle in the ſuperiour parts, a Vein ſhould be opened in the Arm on the ſame ſide; but if a Bubo come in the Groyn, a Vein ſhould be opened in the foot on the ſame ſide. But if a Carbuncle ſhould ariſe in either of the Legs, ſeeing that uſeth to cauſe an inflammation, and great pain, by which the ſtrength is weakned, 'tis convenient to open a Vein in the contrary leg; for neither is the motion of nature hindred by this means, but the matter is drawn from the ſuperiour parts towards the inferiour, and a great flux to the part affected, and the increaſe of the inflammation is hereby prevented.

Purgation. Moreover Purgation alſo is not indicated by the peſtilence, nor can the ſeeds of the Plague be eradicated by any purging medicine, unleſs perhaps a great diſturbance of nature being made, which muſt then be joyned with danger: and for as much as Nature for the moſt part expels the peſtilent venome to the outparts of the body, this motion of Nature by Purgation is hindred, and the peſtilent venome is drawn into the internal parts, and is more mixed with the humours, and the motion of humours being ſtirred up, moſt dangerous, nay deadly vomits and fluxes are occaſioned: And therefore not in purging, but in medicines that reſiſt poyſon, principally, and next under God the hope of health and ſafety is to be placed.

Uſe of Alexipharmicks. Wherefore it will be ſafeſt for any one that ſhall think himſelf to be infected with the Plague, having firſt implored the aſſiſtance of almighty God, to fly to theſe medicines reſiſting venome, mentioned in the fifth chapter before, and to take ſome one experienced and approved medicine; and in caſe it be vomited up

at

at the firſt, then 'tis beſt to take of it again forthwith; nay, in caſe it be retained, it will not ſuffice to take of it but once, but the Alexipharmacal medicine ſhould be repeated thrice in the ſpace of four and twenty hours, and ſo to continue for two days, until that the force of the poyſon ſhall be broken. The medicine being taken, the ſick ſhould forthwith compoſe themſelves to ſweat, eſpecially the ſecond time after taking, they ſhould keep out the cold Ayr, and if the ſtrength will bear it, they ſhould continue their ſweat for two hours ſpace: The ſick ſhould by no means ſleep, until he hath ſweat twice, and between the ſweats ſhould be refreſhed with Conſerve and Syrup of Roſes, Sorrel, acetoſ. Citri, of Pomgranates, red Gooſeberries, with cordial and odoriferous waters applyed to the Noſtril, and ſprinkled about the Bed-chamber. It ſhall be profitable alſo to take warm bread out of the oven, and fill a hollow part of it with Treacle, and apply it to the Navel, or to the Arm-pits, that it may draw the venome to it; The ſweat being ended, the body ſhould be rubbed and dried with clean warm linnen clothes, being careful that no cold ayr be admitted, and the ſheets and coverings of the beds ſhould be changed. After the ſweat, the ſick ſhould be nouriſhed with meats that afford good juice, and eaſie of concoction, yet taken but in a ſmall quantity.

When the ſick hath ſweat once, if there be need of opening a vein, let it be done in that manner as is already heretofore expreſſed: And when the Alexipharmicks have been taken of two days by the ſick, and the body is Cacochymick, or the Plague depend upon ſome internal default of humours, and that great danger of a Fever be to be feared, it will be convenient to adminiſter a purge, that ſome part of the matter putrifying and increaſing, the Fever may be abated; ſo that Nature may overcome the reſt more eaſily: they ſhould be gentle, as Syrup of Roſes ſolutive Tamarinds, Rhubarb, Agarick, Peſtilential Pills, Tryphera Perſica, Syr. Diaſercos.

Afterwards if it be not needful to cauſe ſweat (which nevertheleſs ought not to be hindred if it come on a critical day) ſuch medicines are to be continued as hinder putrifaction, reſiſt a malignant Fever, and extinguiſh the flames in the bowels and humours.

And then we muſt be wary how we uſe Treacle, or any of the other hot medicines, without any reſpect of the diſeaſe, nature, age, and other circumſtances; wherefore when the Fever hath ſet upon the body, ſuch things are not to be exhibited, unleſs they are mixed with cold things, or elſe cold things alone may be

given, ſuch as Syrup, acetoſ. Citri, of Sorrel, Pomgranates, re Gooſeberries, rubi Idæi, as alſo Pearl, Coral, precious ſtones Bezoar.

Cure of Buboes. But ſince that Nature for the moſt part uſeth to ſend the moſt venomous part of the matter to the out-parts of the body, and occaſions Buboes and Carbuncles: If the venome perfectly, o moſt part of it be driven out into a Bubo, which may be known b the remiſſion of the Fever and Symptomes, we muſt expect ripe ning, although not perfectly, as in other tumors, yet it muſt b helped by all means; for if either a Bubo come not enough out or be encreaſed over-much, and ſtill the Fever and ſymptome abate not, and the ſick no ways mends, we muſt endeavour tha a way may be opened for the letting out the venome.

Therefore either veſiccatories muſt be applyed, or the skin muſ be ſcarrified, that the poyſon may freely expire, and the peſti lent humours fly out; a young chicken alſo, or pigeon, the fea thers about the rump being pull d off, ſhould to the great advan tage of the ſick be applyed to it, although no inciſion be made and that ſhould be often repeated; or a dryed Toad being moiſt ned with wine, ſhould be applyed: afterwards we muſt endeavour that the reſt of the matter may be brought to maturity by proper medicines deſcribed every where up and down; into the place opened by Inciſion, convenient digeſtives ſhould be put; and if the inciſion be not made deep enough, and the quitture be ſtil therein detained, the tumour muſt be opened with an Inciſion knife, and the Ulcer mundifyed with proper medicines, and it muſt not be healed up, until all the venome be come out.

Cure of Carbuncles But Carbuncles are forthwith to be ſcarrified, and that deep enough, that the peſtilent and corrupt humour may come forth; afterwards ſome convenient plaiſter muſt be applyed, ſuch as may be of the ſoot of a chimney, and others, deſcribed up and down in Authors: Some apply the plaiſter de Magnete Arſenicali, 'tis proper to apply a dryed Toad alſo, being firſt powd'red, in wine, to the places adjacent, leſt the venome ſhould return to the inter nal parts; ſome defenſitive of cooling, drying, and binding things muſt be applyed; ſome make a circle with a Saphire ſtone about the Carbuncle, leſt the poyſon ſhould creep farther, and thereby extinguiſh the ſame; and if the Carbuncle be too much encreaſed, and cauſe great pain, a vein ſhould be opened under the ſame, that ſo the corrupt blood may be evacuated, and to abate the heat, a plaiſter of Houndſtongue is to be applyed.

When an Eſcar ſhall be generated, it muſt be taken away with a convenient Unguent, and the Ulcer muſt be mundified and cured

cured in due manner; but during the whole time of the cure, twice every ſeven days a potion of the temperate medicines that reſiſt venome ſhould be drunk, leſt any of the malignity ſhould remain in the Body.

Chap. VII.

Of the Nature of a Peſtilent and Malignant Fever, and of the difference of them from the Plague.

Forasmuch as the higheſt degree of corruption of humours is in the Peſtilence, we muſt as it were aſcend to it by the malignant and peſtilent Fevers: of them therefore we will now ſpeak, in what reſpect theſe three, the Peſtilence, a peſtilent and malignant Fever differ.

The plague peſtilent and malignant Fevers, how they differ:

That the peſtilence conſiſts in a certain occult quality meerly adverſe to mankind, and that it is infectious, and that a Fever is not of the ſame eſſence therewith. but yet commonly accompanies it, is already ſhewed: And therefore the Plague it ſelf alſo, when it hath a Fever joyned with it, may not without cauſe in ſome meaſure be called a peſtilential Fever: yet other Fevers alſo are called peſtilent without the plague, wherein the corruption of humours hath not yet attained that high degree which may conſtitute the nature of venomous peſtilence, yet they contain in them ſomwhat like to that venomous and malignant peſtilence, and moreover either are not pernitious, or contagious as the plague, if they are both of them, yet they are leſs deſtructive then the plague; for the difference of a peſtilential Fever, ſo called in particular, and of the venomous peſtilence (ſince the nature of them both is unknown) betrays it ſelf in this, by the vehemency and contagiouſneſs of it, which is perceived to be leſs, not only in ſporadick Fevers, but in epidemical peſtilentials, then in the plague it ſelf: But concerning malignant Fevers, although they by a general name ſignifie truly peſtilentials, yet in particular thoſe are called malignant, wherein there is a leſs degree of corruption then in thoſe that are truly peſtilential, and wherein the humours which kindle the Fever contain in them ſome occult quality tending to venenoſity; whence there is leſs deſtruction and infection, ſomtimes there is none.

And that the matter may be handled in few words, if it appear by the ſymptomes in any Fever, that beſides putrefaction there is alſo ſome occult and maligne quality, and yet but few die thereof, whether they are epidemical Fevers, or ſporadick, or contagious,

contagious, or not contagious; this is the firſt degree of corruption, and ſuch a Fever in particular is called malignant; but in caſe many die, and yet others are not infected, or although there be ſome contagion, and ſome deſtruction, and yet neither the contagion nor deſtructive power have attained to the higheſt degree, and many continue well in health, 'tis a peſtilent Fever in particular. Laſtly, if ſo be many which begin to be viſited die, and that moſt every where are infected, and that the contagion be ſpread over remote places, 'tis the plague.

CHAP. VIII.

To what kind of Fevers Peſtilent and Malignant ones pertain.

To what kind of Fevers peſtilent and malignant ones belong.

MOreover ſince there are three kinds of Fevers, Ephemeral, Putred, and Hectick, and again of putred Fevers, there are ſome differences: 'tis now enquired to what kind of Fevers malignant and peſtilent do belong, or whether malignancy and peſtilency belong to all Fevers, or to ſome certain kind only:

But we have already determined that there are no Ephemeraes nor Hecticks peſtilent and malignant, becauſe that in all peſtilent and malignant Fevers, there are manifeſt tokens of corruption or putrefaction of humours, although that malignant and peſtilent humour have likewiſe a manifeſt antipathy with the ſpirits, and may ſtir up a dangerous Fever.

But all putred peſtilential Fevers are continued, ſince the force of the venomous putrifaction is ſuch, as that it can eaſily diffuſe it ſelf into all the veins and arteries, and may eaſily corrupt the humours.

But malignant Fevers in particular ſo called, may alſo be intermittent, as experience ſheweth: Neither is it impoſſible, that even in the firſt paſſages of the body, the putrifying humours may acquire ſome malignity; and ſeeing that in ſuch Fevers the force of the venome is not ſo great, nothing hinders but that Nature may appoint certain excretions at appointed periods.

Continued peſtilent and malignant Fevers, are particularly addicted to no ſort of them, but according as putrefaction happens into this or that ſickly preparation, ſo this or that continued Fever is ſtirred up, ſomtimes a Synocha, ſomtimes a periodick; whence various ſymptomes likewiſe do ariſe, according to the ſickly proviſion.

Moreover

Moreover concerning the differences of malignant and peſtilential Fevers, ſince that in every ſuch Fever there are found two things, the putrifaction it ſelf, from whence the Fever ariſeth, and malignity; in reſpect of theſe alſo, do the Fevers differ. For ſomtimes equally from putrefaction and malignity, danger is at hand; which Fevers, if the putrifaction and malignity be great, are exceeding dangerous; but if neither the malignancy nor putrefaction be much, the Fevers are not dangerous. Somtimes there is more putrifaction, but the malignancy is not much; and then the Fever comes neerer to the nature of other putred Fevers: but ſomtimes the putrifaction is not much, but the malignant quality vehement, and ſuch Fevers ſeem to be milde but they are moſt fraudulent and dangerous. *The differences of peſtilent and malignant Fevers.*

Concerning the nature of Peſtilency and Malignity, although it be occult, yet from its effects we may apprehend a certain variety, whilſt ſomtimes ſpots, ſomtimes Meaſles, ſomtimes wheals come forth; ſomtimes too great ſweats, ſomtimes Catarrhs, Pleuriſies and other evils, according to the antipathy which the venome hath with this or that particular part.

Chap. IX.

Of the cauſes of a Peſtilent and Malignant Fever.

AS for the cauſes of theſe Fevers, becauſe their malignancy is leſs then theirs of the peſtilence, and through this, as it were by degrees, we aſcend to the Peſtilence, thoſe which are the cauſes of the Plague, for the moſt part, are the ſame with thoſe of malignant and peſtilent Fevers; but more mild, as principally ayr, heaven, courſe of diet, and contagion. *Cauſe.*

Namely malignant Fevers in the firſt place do ariſe from a ſickly proviſion of the body; for it ariſeth from meat that is bad, fit for corruption, and very obnoxious to putrifaction, whereof *Galen* may be ſeen, in his book of Meats affording good and bad juice, and the humours may be ſo corrupted in our bodies, as that they become venomous, of which I have ſpoken in the Inſtitutions in the ſecond book, part 2. cap. 12. Furthermore from common cauſes likewiſe, namely unprofitable conſtitution of Ayr, as alſo from the influence of Stars.

But peſtilent Fevers ſo called in particular, have the ſame cauſes, but more grievous, which at length if they are increaſed, produce the peſtilence; whence Fevers malignant and peſtilent long continuing, at length turn to the plague.

CHAP.

Chap. X.

Of the Signs of Malignant and Peſtilent Fevers.

The Dianoſtick ſigns of peſtilent Fevers.

In the ſame manner is it about the Diagnoſtick ſigns: for in a peſtilential Fever peculiarly ſo called, the ſame ſigns almoſt appear as in the plague, only fewer, or more gentle; and ſuch Fevers are not ſo dangerous nor ſo infectious as the Plague it ſelf.

But as to the ſigns of their differences, if both malignity and putrifaction be very much, the ſtrength will be much weakned, and grievous, nay the moſt dangerous ſymptomes appear: If the putrifaction be very great, the malignancy little, the feveriſh ſymptomes which accompany putrifaction are vehement enough, but the ſtrength is not ſo much debilitated. But if the putrifaction be not great, but the malignant quality vehement, the ſymptomes which accompany the Fever are gentle enough, but the ſtrength is exceedingly weakned.

If the humours only are affected, there appear Buboes, Carbuncles, Impoſthumes, Spots, Puſhes, and other tokens of putred Fevers, if the ſpirits are much infected, theſe ſignes are wanting, neither is the heat great, the ſtrength ſuddenly languiſheth, and the ſick are troubled with faintings, the pulſes are unequal, weak, and languiſhing, and the Fever it ſelf in one two or three days ſpace is terminated by health or death. Laſtly, if the heart be much infected, great defect of the ſtrength is preſent, and the ſick do not complain of any great heat.

Of malignant.

As concerning Malignant Fevers, they are very difficult to be known at the firſt, becauſe the malignity often lies hid, and ſhews not it ſelf, unleſs when it take ſtrength; wherefore all ſigns are diligently to be weighed, and if any thing be ſuſpected, it muſt be ſeriouſly pondered; but all the ſigns of a malignant Fever are greater then thoſe of a Fever; and the ſymptomes which appear, are more vehement then thoſe which can proceed from a Fever, namely weakneſs of ſtrength, unquietneſs, more anxiety then the feveriſh heat would occaſion; the pulſe is frequent, little, weak, or if it ſeem to be natural, other evil ſymptomes are preſent, the Urine ſomtimes is like unto thoſe who are in health; ſomtimes thin and crude, having in it no ſediment, or in caſe it have any, 'tis more like an excrement then a ſediment; ſomtimes 'tis thick, diſcoloured, troubled, muddy, having a red and troubled ſediment; the heat is more milde then the nature of the

diſeaſe

diſeaſe, and ſymptomes ſeem to afford: the face or countenance is much changed from its lively and natural ſtate; and therefore by theſe ſigns peſtilent and malignant fevers may be eaſily known: yet there are other things happen, heavineſs to ſleep, watchings, deliriums, pains of the head, noiſes and deafneſs of the ears, loathing or vomiting, flux of the belly, hemorrhodes of the noſe, tumors ariſe behind the ears, under the arm-pits, and about the groin, alſo divers ſpecks, and almoſt no evil which can be obſerved in other perillous Fevers but may here be diſcerned.

Concerning the prognoſticks, and firſt of peſtilential Fevers, here is the ſame with them for the moſt part as of the peſtilence; for by how much the more grievous the ſymptomes are, and the ſtrength more debilitated, by ſo much the more danger is portended; but by how much the milder the ſymptomes are, and the ſtrength firmer, by ſo much is there the more hope of health. *Prognoſticks.*

There is the ſame reaſon in malignant Fevers for the moſt part, and what is to be hoped concerning the event in every ſuch Fever, is manifeſt out of thoſe things which are ſpoken in the Inſtitutions, Book 3. part 3. chap. 4, 5, 6, 7, 8.

Chap. XI.

Of the Cure of Malignant and Peſtilential Fevers in general.

Concerning the cure of peſtilent and malignant Fevers, ſince there are two things in theſe Fevers contrary to nature, venome, or malignity, and the Fever; by what means the Fever may be reſiſted, is manifeſt from thoſe things that have been ſaid hitherto concerning Fevers: how malignity alſo may be reſiſted out of thoſe things which are already ſpoken concerning the peſtilence, is plainly ſhewed. *Cure.*

The greateſt difficulty here is in this, to which of them we muſt have an eye firſt, and which laſt, and how the malignity may be taken away without increaſing the Fever, and on the contrary, the Fever may be regarded without increaſing the malignity. Which that it may rightly be done, the peſtilent venome and malignity, and the putrifaction and Fever are to be conſidered and poiſed together amongſt themſelves, and regard to be taken whence the greateſt danger may ariſe; and in the firſt place look to that, yet ſo, as that the other may not totally be neglected.

Where-

The Cure of the plague in particular.

Wherefore in a peſtilential Fever, as being that wherein malignity moſt troubleth, preſently we ſhould fly to Alexipharmicks and Sudorifiques; yet thoſe are to be rather choſen which are more temperate, ſuch as were formerly propoſed againſt the peſtilence; afterward if need be, a vein ſhould be opened; and that timely, and ſcarce after the fourth day, before all things ſhall be diſturbed in the body, and the ſtrength be weakned, namely when blood doth either abound in quantity, ſo that it diſtendeth the veſſels, or it is a burthen to the ſtrength, or is ſtirred by ſome motion, that it may be feared leſt it ſhould be carried to ſome principal part; but if the diſeaſe have made ſome progreſs, and the ſtrength now labours, the breathing of a vein is more ſafely omitted then untimely appointed; but in caſe the ſtrength will not ſuffer a vein to be opened, cupping with ſcarrifying is fit to be uſed to the inferiour parts.

Sudorificks

Bleeding

Purging.

But purging at the beginning of theſe Fevers is not convenient, unleſs ſuch as may purge only the firſt ways without any manifeſt agitation of the reſt of the humours; but ſtronger are not convenient, becauſe they ſtir the humours, and mix the venome with them the more, and often cauſe dangerous fluxes of the paunch.

Vomits.

If the matter tend upwards, and there be any nauſeouſneſs, vomit is to be provoked by the weaker ſort of medicines cauſing them.

Hence we are to come again to the Alexipharmacal medicines, which notwithſtanding ſhould be ſuch, as that the humours ſhould not thereby be increaſed: Therefore thoſe are to be exhibited that are more temperate, and together do reſiſt putrifaction; ſuch are Sorrel, Citrons, Pomgranates, Cinquefoyl, Tormentil, Hartſhorn, the bone of a Harts heart, Bezoar ſtone, Bolealmenack, Terra Sigillata, and ſuch like, and medicines prepared of theſe, but principally Bezoar water is often to be adminiſtred, as being that which doth forthwith penetrate, which may be ſo tempered, as that it may reſiſt the Fever and putrifaction; and therefore with ſuch medicines, Syrup of Sorrel, Limmon, Pomgranates, Sorrel, and young Sorrel, and ſuch like are to be mixed.

Veſicatories.

The matter being diminiſhed, veſiccatories may be applied to the Legs and Wriſts, to the advantage of the ſick, ſince that they draw the venomous matter from the interiour parts to the exteriour, without any trouble or weakning of the ſtrength.

Cure of a malignant Fever in particular.

Purging,

But if it be a malignant Fever in particular ſo called, and the putrifaction more then the malignity, the firſt paſſages are firſt to be purged, and not only with lenitive Cliſters, but lenitives

alſo

ſo are to be given, as Syrup of Roſes ſolutive, Manna, Caſſia, amarinds, Agarick, Rhubarb, Tryphera Perſica, eſpecially if e matter ſwell: But we muſt wholly abſtain from the ſtrongeſt, Scammony, Coloquintida, Turbith, and ſuch like. And deed, if the putrefaction preſently increaſeth, and a more vehe-nt Fever is thereby kindled, and eſpecially if the humours ll, preſently that is to be done, and that before the third y.

But theſe things in general cannot ſufficiently determine; eſe tracts in particular of theſe Fevers, ſhew the way more clear-; for ſuch peſtilent and malignant Fevers are ſomtimes propa-ted by infection, when it is moſt ſafe that the pollution in what nner ſoever taken, ſhould be expell'd by Sudorifiques and A-ipharmicks out of the body, and afterwards, if occaſion do quire, to appoint purgation and Phlebotomie; ſomtimes like-e nature it ſelf expells the matter to the circumference of the dy, as it uſeth to happen in the Meaſles and ſmall Pox; but n Nature is alſo troubled in her work, and the matter which thruſt out to the exteriour parts of the body, ought not to be led in again by purging, but 'tis rather to be helped by Sudo-fiques and Alexipharmicks in its work; but ſomtimes the Fever occaſioned by vitious preparation of the humours, or is che-hed thereby, and the peccant matter in the Stomack, neat the idriff and firſt paſſages, manifeſteth it ſelf by vomit, pain, heat, ternes of the mouth, anxiety, and other tokens, which neceſ-ily ſhould be avoided by vomit or purgation.

The firſt paſſages being opened, and the body evacuated, pre- *Bleeding.*
tly the opening of a vein is to be appointed, if it be needful, d that before the fourth day.

After purging the body and opening a vein, if occaſion re- *Sudori-*
uire, 'tis convenient to uſe ſome Sudorifique, but ſuch as may *ficks.*
ot increaſe the Fever, ſuch as we have already propoſed; and though ſweat doth not always follow, yet ſuch medicines are to e continued and exhibited daylie, that ſo the body may by de-rees be apt to ſweat, and that nature at length of its own ac-rd, in its own time, may expel peccant humours by ſweats; ut the ſtronger Sudorifiques at the firſt, debilitate Natures trength; and ſince the humours in theſe Fevers are not alwaies diſpoſed that they can be diſcuſſed by ſweats, yet the thinner e diſperſed, and the thicker remains behind. Wherefore pre- *Altering*
aration and alteration of the humours is to be ordered by thoſe *preparing*
edicines which open, and if occaſion require, may cut thoſe *medicines.*
umours, and may reſiſt ebullition and putrifaction, extinguiſh

the

the heat of the Fever, and reſiſt malignity, and may by degree diſpoſe nature to ſweats; ſuch are Sorrel, Scordium, Carduu Benedictus, Scorzoneca, the ſeed of Citron, Roots of Tor mentil, Cinquefoyl, juice of Citron, Pomgranates, and Syrup of theſe, Spirit of Vitriol: when the humours are ſufficient prepared, unleſs Nature expel alone, they are to be evacuated b a convenient paſſage, but then alſo lenitive medicines muſt b uſed, and purgation ſcarce to be ordered before the fourteent day.

Cauſing Urine. If Nature tend to evacuation by urine, it is to be helped b an emulſion of the ſeeds of Melons, Citron or Limmon, Car duus benedictus, with the water of Sorrel, Mayden-hair, an ſuch like.

Topical things. But during the whole time of the ſickneſs, as well in ma lignant as in peſtilent Fevers, medicines are to be applied to th Pulſes and heart, ſuch as ſtrengthen the heart, and reſiſt ma lignity, which are very where extant; Symptomes alſo, if an urge and debilitate the ſtrength, are to be taken away and miti gated, as in their own place ſhall be ſhewed.

Diet. Concerning Diet, the meat ſhould be of good juice, and o eaſie digeſtion; and to beware that when the ſtrength languiſheth Nature be not over-burthened; the meats alſo ſhould be mixed with ſuch things as reſiſt this Fever, we muſt abſtain from wine unleſs ſwooning fits happen, but 'tis more convenient to uſ ſmall beer, a decoction alſo of Harts-horn may well be given with ſuch a quantity of Spirit of Vitriol as may render it grate ful to the taſte, to which alſo ſome Juleps of Roſes and Violet may be added: It allays thirſt, likewiſe opens obſtructions drive away putrifaction, and reſiſteth malignancy; of *Ægyptii*, a *Proſper Alpinus* in his fourth book of Medicines *Ægypt.* chap the fourth. Pulp. of Tamarinds and Barberries, the fruits being dryed, with the ſeeds of Fennel or Limmon, they pour them into abundance of fair water, and ſo prepare a Drink, which they adminiſter to the ſick during the whole time of the diſeaſe in ma lignant and peſtilent Fevers, and confide much in the uſe of this Drink, ſince that it is found that Tamarinds and the fruit o Barberries do exceedingly reſiſt putrifaction in Fevers.

CHAP.

CHAP. XII.

Of a Malignant Fever, with the Meaſles and Small Pox.

Small Pox and Meaſles.

ALthough the nature of malignity, from whence malignant Fevers are denominated be occult, and therefore much cannot be ſpoken of the differences of theſe Fevers, yet there is not one reaſon only even of the ſame, but ſome variety ſhews it ſelf by the effects and ſymptomes, whence alſo certain differences of malignant Fevers are appointed, of which we will now ſpeak in particular.

Firſt, there happen Feavers wherein puſhes or eminent tubercles break forth, and ſometimes certain ſpots ſhew themſelves: the Grecks call them *Exanthemata*, and *Ecthumata* the Latines *Papulas* and *Puſtulas*, and at this day they are called the Meaſles and Small Pox; which names, although they are not uſed in the ſame manner by all, yet the moſt at this day call *variolas*, *parvos varos*, little ſpots or Meaſles, and they give this name to thoſe puſhes full of humours, which for the moſt part ſuppurate, which the Germans call **die Bitterne** and **Pocken**; but they call thoſe *Mobillos*, which are ſpots only in the skin, or rather ſmall tubercles in the skin, which the Germans call **die Maſſerne**.

Definition

Variolæ are puſtules breaking forth in the skin and parts adjacent, with a continued Fever occaſioned by the fervency of the blood, and ſent forth by the expulſive faculty; but *Morbilli* are little red ſpots or tubercles coming out in the skin with a continued Fever, bred by the ebullition of the blood, and ſent out by the expulſive faculty.

Of both kinds there are ſome differences; for of *Variolæ*, ſome are greater, ſome leſs; ſome white, others yellow, or of ſome other colour; ſome break out forthwith, and riſe high, and are ripened and encompaſſed with a red circle, and come forth without any grievous ſymptomes; and are not dangerous; others are yellow, come forth ſlowly, and preſently pitch in, and have a livid circle about them, and are dangerous.

Differences.

To the *Variolas* belong thoſe puſtules alſo which break out the body, and are about the bigneſs of Lupines, and ſtanding like Chriſtal, out of which a certain waterish ſubſtance

 illueth;

issueth; which some therefore call Chrystals, the German call them **Hagelsblattern, oder Windpocken,** which are less dangerous, and without any manifest Fever for the most part they do appear.

Moreover to the *Variolae* belong those tubercles coming out here and there in places, and are free from quitture, which the Germans call **Steinbocken,** and are for the most part the least of all the kinds of *Variol.* and freest from danger, which befals children often without a Fever, and are presently healed; so that Infants seldome take their beds for them,

To the Poxes or Measles certain small red tubercles do belong, which invade with heat, and a cough and other symptomes of the Pox, yet less dangerous then the pox; the Germans call them **die Rittein,** or **die Rottein,** because they are red; sometimes they come alone, sometimes are mixed with the Pox, and sometimes come after the Pox is healed which disease *Halyaabas* calls *Rubeolam, lib.* 8. *Theoric. c.* 14. Moreover there are other breakings out which seem to be referr'd to Poxes, which the Neapolitans call *Rossoni* and *Rossaliam,* as *Johannes Philippus Ingrassiat* of tumours speaks; by others they are called Purples, and Eruthemata yet some call the red spots or Patechii, purples: They are red, and as it were fiery spots, because scarce worthy to be called tumours, coming out over all the body, as it were certain small Erysipelaes at the beginning of the sickness, or on the fourth or fifth day: In the progress of the disease it spreads over all the body, as if it were on fire, or as if one were full of an universal Erysipelas, which colour, as in the beginning so in the declination, is turned into spots, which again on the seventh or ninth day vanish, falling away from the skin like scales of Fishes.

Subject. The subject of spots and pushes is the skin, and other parts answering to the skin in proportion; for it hath been found in dead bodies, that the superficies of the Intrals, and on the skin without side the Pox have been setled.

Cause. Concerning the cause of these, there is difficult and great controversie amongst Physitians; The Arabicks, and those which follow them, attribute the cause of the small Pox and Measles to the uncleanness of the blood, contracted from the menstruous blood in the womb, by the Infant which was there nourished with it; for they say, that this filth being left in the body, doth lie still, like unto leven, until stirred; so that

the whole blood, boyls like new wine, and ſo whatſoever is in it of impurity, is ſeperated and ſent to the out-ſide of the body; and they therefore ſay ſo, becauſe they obſerved that almoſt all men at ſome time are troubled with the Pox or Meaſles, and thoſe which have had them once or twice, for the moſt part are free from them ever after.

Others are againſt this opinion, and ſay, that it proceeds from ſome occult celeſtial cauſe, whoſe impreſſion, children being more infirm, are apter to take, then thoſe that are ſtrong and in years; neither do they think it probable, that Infants are nouriſhed in the womb with unclean blood, or that this impurity can lie hidden ſo long in mans body, ſince 'tis known that not only Infants, but youths, nay ſuch as are well in years, and old men alſo ſome times fall ſick of the ſmall Pox, which formerly have been ſick of Fevers, and troubled with ſcabs, in whom (in caſe any impurity had been in the blood) it ought to have been then taken away.

But in regard both opinions contain difficulties in them, and both ſeem to be held up with probable arguments; let us joyn them together; for if the Pox and Meaſles are epidemical and infectious, 'tis not to be denied but that they then ariſe from a certain peculiar malignant diſpoſition of ayr, Then Infants, as being more tender, ſooner are infected; although it cannot be denied, that from an external cauſe, an infirmity lying hidden within, may be brought forth into action, yet if the power of the malignity be greater, thoſe of ripe years may ſomtimes be afflicted: But if the Pox or Meaſles come forth ſcattered here and there, 'tis probable that they proceed from the impurity of the womb, whereby a vitious diſpoſition of the body is contracted by the party in the infancy eſpecially if there be no fault in the Ayr; for although an Infant in the womb be nouriſhed with the pureſt blood of the mother, yet when it becomes bigger, and wanteth more nouriſhment, it cannot be but that it muſt draw ſome of the depraved humours which are cumulated in the womb with it. Whence it is known, that Infants have been born ſick of the ſmall Pox, or had them come forth preſently after they come into the world: Yet 'tis not impoſſible but that from ill Diet the ſame vitiouſneſs may be contracted, as from the menſtruous blood in the womb, and that may happen to thoſe that have had the ſmall Pox twice or thrice, although it may likewiſe happen by reaſon of the firſt pollu-

tion and defilement, of which ſome reliques were left.

Whether any and what Fever may be joyned with the Small Pox and Meaſles.

The ſmall Pox and Meaſles alwaies come forth with a Fever; for they are ſtirred up by a certain criſis, and that ebullition not only happens to the ſubcutanial veins, but alſo to the greater; whence heat is communicated to the heart, and a Fever is kindled, and that Fever is made a putred Synocha, as may appear by the equal heat, and the matter contained in the Pox; and that which is gentle, often vaniſheth within a few days, neither is it regarded by Infants, nor the ſtanders by; but that which is more vehement, if the diſeaſe be to determine with ſafety, will abate when the Pox comes forth; ſomtimes theſe Fevers become peſtilential, and then many Infants are extinguiſhed.

And thus the ſmall Pox and Meaſles are generated from internal cauſes; yet external cauſes likewiſe do often concur as humours corrupting in this manner, or lying hidden, have force of moving: The firſt is Ayr, by reaſon of the influence of Stars, or cauſes otherwiſe ſo diſpoſed, as that they may corrupt the humours in this manner. Moreover contagion, when a certain ſickly effluvium or ſteam from bodies diſeaſed of the ſmall Pox or Meaſles, is communicated to another body, and cauſeth the ſame diſeaſe therein.

But of Poxes and puſhes there is certain differences, as hath been ſaid, in ſubſtance, quantity, and quality. According to ſubſtance, ſome conſiſt of this, ſome of that humour; according to quantity, ſome are big and many, others ſmall and few: according to quality, ſome are white, others red, yellow, livid, violet colour, &c. Some come out ſuddenly, others ſlowly; ſome are preſently healed and vaniſh, others continue long; ſome afflict only the external parts of the body, ſome the internal alſo.

Diagnoſtick ſigns.

But when the Pox or Meaſles are coming, there is preſent pain in the head, eyes, and throat, an itching of the noſtrils, ſneezing, terror in ſleep, fits like epileptical ones, pain on the back, burning and pricking in the skin, difficulty of breathing, a dry cough, trembling of the feet, yawning, retching, palpation of the heart, which actions ſo hurt, proceeds from the ebullition of the blood, and fuliginous vapours ſent from the heart, and diſperſed over all the body. Their Urine is often like unto theirs who are in health, the peccant matter being thruſt out to the extremities of the body; yet ſomtimes they troubled by reaſon of the great ebullition of humours, the hemorrhoids

morrhodes of the Noſe are frequent, tears uſe to fall from the eyes of their own accord, or the eyes ſhew as if they were ready to weep; ſomtimes vomiting happens, the face and eyes are red, the skin rough, the voice hoarſe, and laſtly, a Fever by the ebullition of humours is kindled; If theſe ſigns therefore for the moſt part are preſent, and are encreaſed on the third or fourth day, and certain red ſpots appear in the skin, 'tis a ſign that the Pox or Meaſles are at hand; and this ſuſpition is increaſed if the Pox reign thereabouts. A little afterwards thoſe ſpecks are exalted like grains of Millet, and afterwards changed into puſtules full of quitture, and are become Pox, or are extended abroad, and ſmall tubercles are made, and the Meaſles are produced.

Signs of Cauſes, and of the part affected.

The nature of humours is principally known by the colour, for if the pox proceed from a cholerick humour mixt with blood, they are more red, and do itch more; from Flegm, they are whiter, from melancholy blacker: ſomtimes likewiſe they are of violet colour, green, lead colour, and with greater corruption of humours: If they poſſeſs not only the skin, but alſo the internal parts, the Fever is greater, thence comes great difficulty of breathing, ſtraitneſs of the breaſt, a greater cough, pain in the ſtomack and guts, moſt vehement.

Prognoſticks.

Small Pox and Meaſles are numbred amongſt acute diſeaſes, and are terminated within fourteen days; they come forth commonly about the fourth day, they increaſe till the ſeventh, the height is manifeſt the eleventh, and from thence to the fourteenth is the declination; but the drying of them continueth till the twentieth day ſomtimes.

The Fever adjoyned, the magnitude of ſymptomes, the manner of the Pox, and the ſtrength or the ſick ſhew the event. For if the Fever and all the other ſymptomes after the coming out of them do abate, if large hemorrhodes of the noſe have preceded, if the puſtules are great, white and red, ſoft, eminent, not alike, come forth quickly, and are ſoon ripened, a good event is to be hoped for.

On the contrary, the Fever if it be great, and be not mitigated after the coming out of the Pox, and the tubercles are violet colour, green, livid, hard, contiguous, come forth and ripen ſlowly, and the ſymptomes which uſe to be in malignant Fevers be more grievous, the ſtrength weaker, they portend danger, and either bring death, or ſome great evils in the eyes, noſe, chops, gullet, lungs, guts, liver, reins, and leave filthy pits and ſcars in the skin.

There is in a manner the ſame reaſon of the Meaſles, which the more milde the Fever and ſymptomes are, the leſs danger; but by how much the greater, the more danger is adjoyned with them; they are ſooner diſcerned, neither are they ſo lothſom to the ſight; red ones likewiſe, and thoſe that ſoon appear are more mild, but thoſe that are green, violet colour, black and come forth ſlowly are worſt.

But the worſt is, when the Pox or Meaſles come not throughly out, or do vaniſh again, for then by the matter left within, or returning in, a greater Fever is kindled, ſymptomes become greater, and the ſick, for the moſt part, periſh.

Indications and Cure. The chief ſcope of the cure muſt be, that ſince Nature ſtrives to expel the matter to the remote parts of the body to aſſiſt it: the ſecond is, That the pravity of the matter may be corrected: The third, That the ſtrength may be fortified: And laſtly, To take care that no part of the body receive any detriment.

The endeavours of Nature are furthered if the humours are driven out to the circumference of the body, and the impediments that may diſturb the matter in its coming forth, whether it be ſtore of matter, or pravity of it, or obſtruction of the bowels muſt be taken away.

Bleeding. But becauſe this evil principally invades Infants, breathing of a vein is not neceſſary, ſince their age will not tolerate it, but if it happen in an age that will bear it, and the abundance of blood require evacuation, preſently at the beginning before the becoming out of them, a vein is to be opened, that nature being eaſed of part of its burthen, may the eaſier expel the remainder.

Strong Purges are not to be uſed, leſt nature ſhould be hindred in its endeavour, or a dangerous looſeneſs ſhould be occaſioned; yet if the body be bound, it may be relaxed by a lenitive Medicine or Cliſter, which together allays the heat of the humours, and ſtrengthens the internal parts.

Expelling things. Moreover we muſt obſerve whether Nature do its office in expelling; for then there is no need to help it with many medicines, eſpecially heating ones.

But if the Pox come out ſlowly, Nature ſhould be helped with expelling Medicines; yet ſuch things ſhould be mixed therewith, as may ſtrengthen the internal parts, mitigate the heat of the humours, and reſiſt malignity.

The expelling Medicines are, Roots and Seeds of Fennel, Turnip,

Turnip, Carduus benedictus, Columbine, Limmons, Roots of white Dittany, Burnet, Maidenhair, Marigold flowers, decoction of red Parsnips, Scordium, Scabions, Myrrhe, Figs, Lentiles, and other things that resist malignity.

Cooling things.

These things cool and resist malignity, Sorrel, young Sorrel, Lettice, Waterlillies, Purcelane, Barley, Tormentil, Endive, Cichory, Juice of Limmons, Oxysaucharum, Rob of Currans; In giving of which, regard must be had to the malignity and Fever together, and according as need shall require, the medicines must be chosen or mixed.

Medicines of Figs, Lentiles, Lacca, and Tragacanthwere, in use amongst the Arabians, which were likewise used by latter Physitians; yet if the malignity be great, you may fly to more exquisite resisters of poyson.

But principally we must endeavour to beware that the sick take not the fresh ayr, but be rather placed in a hot place, that the pores of the skin may be kept open, and that nothing may hinder Nature in expelling,

How the parts are to be defended.

And we must be careful also, that the eyes, nostrils, and internal parts may not be hurt; and therefore the Lungs are to be fortified and strengthned with medicines of Poppy, Lentiles, Violets, Tragacanth Roses, the guts with strengthners, and moderate binders, the eyes, and nose with such like, as their infirmities do shew they have need of. The mouth and chops should be washed with decoction of Plantane, red Roses, flowers of Pomgranates, Prunellas, Syrup of Pomgranates, and such like.

Whilst the wheals are ripening, there will be much itching, but beware of scratching, lest you thereby cause scars in the skin; if the quitture be white, and the pustules not too great, 'tis best to commit the whole business to nature; but if they are great, or many of them joyned together, when by their whiteness, softness, and freeness from pain they shall appear to be ripe enough, they may be opened with a silver or golden needle best.

Diet.

Concerning Diet, the sick by all means must be kept from the cold ayr, neither must he be kept too hot, lest it make him faint: The manner of Diet as in other acute Fevers, is to be appointed, namely thin; yet to Infants, if their stomacks will bear it, some meat may be given, because their bodies are not diaphoretick, and by reason of their store of innate heat, cannot so well endure fasting: from meats that are salt, acrid,

flat, which may increaſe an ebullition of humours, we muſt refrain, and thoſe that moderately cool and bind, and allay the heat of the blood, muſt be adminiſtred. Wine at the firſt is not convenient, but rather ſmall Beer, or Barley water; but in the progreſs of the diſeaſe, when the ſymptomes ſlacken, to thoſe that are accuſtomed to it, a little of the ſmalleſt wine may be granted.

There ought to be temperate moderation of the other non-naturals likewiſe, watchings and ſleep, the ſick ſhould ſleep moderately: In the beginning of the Pox or Meaſles, there ſhould be gentle frictions of the legs and arms uſed, whereby the humours might be called out to the circumference of the body. 'Tis in uſe to put a red cloth to the bed in the ſight of the ſick, to cauſe motion of humours to the exteriour parts. The Belly ſhould be kept open with a gentle Clyſter, if need require: Laſtly, all vehement perturbations of the mind muſt be avoided, eſpecially anger and fear.

CHAP.

CHAP. XIII.

Of the Spotted Fever.

MOreover, another ſort of malignant Fever is, when certain ſpots like the biting of gnats appear in the skin; There are of divers colours, but principally red, lled by Authors *Puncticulæ*, *Peticulæ*, and *Patechiæ*, ence the Fevers are alſo called *Peticulares*, *Patechiales*, *nticulares*. *Patechiæ*

Theſe ſpots are without all itching, extuberancies, and ulration, as in Poxes; and theſe ſpots in theſe Fevers appear incipally in the back, arms, legs, and breaſts, namely in plathrough which the moſt eminent veins and arteries do paſs, t in the face they do ſeldom appear, becauſe it is alwaies obous to the external Ayr.

Theſe ſpots have their original from the thinner parts of putred and corrupt humour, whence they ſuddenly come t and vaniſh; but although they are made by the expulſive ulty, driving this part of the corrupt humour to the extreties of the body; yet that ſeldom happens critically, becauſe y come out for the moſt part at the beginning, the matter ing not as yet concocted, neither is there any notable evaation of the matter made by them, nor the ſick are not the tter for them, but for the moſt part by how much the more ntifully they come forth, by ſo much the greater ſtore of rupt matter is indicated, which notwithſtanding as is ſaid eady, is not ſufficiently evacuated by thoſe ſpots *The cauſe.*

There are of thoſe ſpots ſeveral differences; for firſt, they fer in colour, ſome are red, ariſing from the more temperate od putrified; others yellow & green, when choler is putrified; ers, Pomgranet colour and black, when melancholy, putrifi-. Moreover they differ in quantity, for ſome come out more ntifully, others more ſparingly; ſome are greater, others s, according to the quantity and thickneſs of the humour, d ſtrength or weakneſs of nature: ſome come out at the benning, others in the progreſs of the diſeaſe. *Difference.*

This Fever is known by the ſigns of Malignant Fevers in neral already ſet down; and when the ſpots joyn together, y ſhew malignity more plainly. *Diagnoſtick ſigns.*

But what event of theſe Fevers may be hoped for, is manifeſt

Prognosticks. feſt by the prognoſticks of malignant Fevers in general. Concerning the ſpots themſelves, although it be good that the peccant matter be carried to the extremities of the body, yet by theſe ſpots they cannot ſufficiently be evacuated; therefore although if they are plentiful, they ſhew that ſtore of matter is preſent; yet they ſhake it not of, and therefore they portend danger rather then health: Neither is their paucity always good, and although it ſignifie no ſtore of matter, yet it alſo denotes debility of nature: Theſe ſpots (if they lie hidden) are evil ſigns; becauſe they ſhew that the matter which before was coming to the outſide of the body, does now tend inwards and go to the head, heart, or ſome internal part. Red ſpots are moſt ſafe, yellow and green worſe, and pomgranate colour and black moſt dangerous. Although ſuch as come out at the firſt appear ſymptomatical, yet thoſe that break forth the ſeventh day, or thereabouts, are critical: yet unleſs other good ſigns are preſent, put no confidence in them, becauſe they do not ſufficiently evacuate the matter; but if they come out ſlowly 'tis evil; for that happens either by reaſon of the thickneſs of the matter, into which if the malignity fall, 'tis not eaſily overcome, or elſe by reaſon of denſity of the skin, which hindreth free tranſpiration.

Cure. Laſtly concerning the cure, thoſe things that are ſpoken about the cure of malignant Fevers, are here alſo convenient; namely, the belly is to be looſned either by Cliſter or lenitive medicine; or if the matter tend upward, and the ſick be inclinable to vomit, a Vomit muſt be given.

Bleeding. Then if occaſion require, a vein is to be opened before the fourth day, or elſe afterwards to be omitted; but whether the ſpots now coming forth do hinder the breathing of a vein, is ſhewed in the *Inſtitutions lib. 5. part. 2. ſect. 1. cap. 17.*

But ſince nature it ſelf ſtrives to protrude the matter we ſee to the extremities of the body, and 'tis profitable in all malignant diſeaſes to drive out the matter from the greater to the leſſer veſſels, and to free the bowels from vitious humours, the endeavours of nature is here to be aſſiſted, and the matter tending to the outmoſt parts of the body, is by it to be evacuated; becauſe that otherwiſe that which is malignant will admit of no concoction.

Sweats

Therefore let the ſick be kept in a place moderately hot, and forthwith ſome Sudorifique medicine, and which alſo may reſiſt malignity given, ſuch as are before propounded for the plagu

plague and malignant Fevers in general, and for the **Measles** and ſmall Pox; yet thoſe are to be ſelected amongſt them that may not increaſe the feveriſh heat; and the Fever and the malignity are to be weighed together, and of that which moſt requires it, regard muſt be taken.

Somtimes a looſeneſs happens in this Fever, which unleſs it be too great, ſhould not be ſtopped, but the buſineſs ſhould be committed to nature, and in the interim, only with altering medicines, and ſuch as reſiſt malignity, the morbifique cauſe muſt be reſiſted. *When a looſeneſs comes, what muſt be done.*

Afterwards to fortifie nature, Pearls, Coral, Hartshorn, juice of Pomgranates, Citron, Confectio de Hyacintho, Alkermes, and ſuch like are to be exhibited.

Externally likewiſe medicines are to be applied to the region of the heart, and to the pulſes, which draw venome from the heart, and reſiſt malignity, and ſome uſe an unction ex Hydræolo, and niter to relax the skin, and draw out humours. *Topical medicines.*

Neither is it unprofitable to apply veſiccatories to the arms, eſpecially if the external parts are cold, and the internal burn, and that pains in the head, deliriums, a lethargy, and other ſymptomes in the head are preſent; for ſo both the humours are called from within outwards, and are likewiſe refelled from the head. *Veſicatories.*

CHAP.

Chap. XIV.

Of the Engliſh Sweat.

The Engliſh ſweat

There was a kind of Fever malignant, which began in *England* in the year 1486. and thence it took the name of the Engliſh Sweat, and it reigned there about forty years, and killed almoſt an infinite number of Engliſhmen: Hence being ſpread through the Netherlands, Germany, the Low Countries, Holland, Zeland, Brabant in Belgia, Flanders, Dane, Norway, France, it continued until the year 1530.

The ſame Fever was accompanied with Sweats, and was called the Sudatory Fever; for thoſe which were troubled with this Fever, abounded with Sweat, without Bubo, Carbuncle, or puttings forth; the ſweat perpetually and in great abundance coming out, until the diſſolution of the diſeaſe, which hapned within twenty four hours ſpace: Together the ſick languiſhed, deficient in mind, with unquietneſs, troubled at heart, pain in the head, and alſo with palpitation of the heart, and they had a pulſe, thick, frequent, ſwift, and unequal; and the palpitation of the heart accompanied thoſe that eſcaped, oftentimes ſome years, ſomtimes till death.

The cauſe

But the cauſe of this diſeaſe was inherent in the moſt ſubtile parts of the blood and ſpirits, which were together affected, which the ſhortneſs of the diſeaſe argues, and without doubt the blood and ſpirits contracted this malignity from ſome evil diſpoſition of Ayr, and other corruption; whence alſo this diſeaſe in many places in the Low Countries with cloudy ayr, ſuddenly invaded men, and the birds alſo were found dead under the Trees, and 'twas obſerved that they had puſtules under their wings like Vetches or Tares: But what manner of corruption of the Ayr it was, can ſcarce be explained.

Prognoſticks.

For this was a moſt cruel diſeaſe, and within the ſpace of twenty four hours, it either killed men, or left them ſenſeleſs: and indeed at the firſt when this diſeaſe did invade any City, it troubled them fifty or ſixty times, but it ſcarce troubled them the hundredth time.

Cure.

But the chief buſineſs of the cure conſiſted in the promotion of ſweat, and weakning venome, which nature of its own accord endeavoured; for all thoſe that did not further the ſweats, nor

nor use cordials, and took fresh ayr, died within four and twenty hours.

In occasioning Sweats, the strength must be regarded, which in case it be weak, the sweat must so be moderated, that thereby it may not be debilitated more, and dejected: for 'tis observed, that by too much causing sweat, and whilst the sick beyond their power to suffer, are cover'd in their beds, abundance of men have been stifled: During sweating, the sick should be hindred from sleep.

They used to occasion sweat, and infringe the malignity, water of Sorrel, Scabious, Terra Sigillata, Bolearmenick, Dittany, Carduus benedictus, Zedoaric, Tormentil, Waterlillies, Burrage; Species liberantis is also proper, and such like, which use to be applied in malignant Fevers, and the Pox. During the Sweats, the sick should be refreshed with the juice of the Syrup of Citron, Pomgranates, Sorrel, and other things before mentioned about the plague. Odoraments should also be applied to the Nose. When the sick hath sweat enough, some of the weight of the clothes should be abated by degrees, and the sweat at last diligently wiped off and cleansed.

CHAP.

CHAP. XV.

Of the Ungarick Diſeaſe.

Of the Hungarian diſeaſe.

AMongſt the malignant Fevers, there is alſo a diſeaſe called the Ungarick, becauſe it was firſt known in Hungary in the year 1556. and thence 'tis thought 'twas ſpread almoſt over all Europe, Indeed ſome think the patechial Fever, and the Ungarick Diſeaſe are the ſame; and 'tis true that ſpots often happen in that, but not alwaies is it ſo, and the name of a patechial Fever is extended larger then the Ungarick diſeaſe; for this is a certain kind of malignant Fever or if it have ſpots, and is patechial, yet this diſeaſe is bred in Camps by reaſon of evil Diet, whence we think it to be properly called the Military diſeaſe, or the Diſeaſe of the Camps becauſe that not ohly in former times in Hungary, but elſewhere, it wandred up and down in the Camps hitherto, and thence is diſperſed up and down. But there is a malignant and infectious Fever called *Morbus Ungaricus*; 'tis continued, and hath great ſtore of vitious humours about the ſtomach and firſt paſſages joyned therewith.

The cauſes.

The proximate cauſe of this Fever is putrefaction, the cauſes and malignant corruption of the humors in the vena cava. But they are cumulated and corrupted by errors of Diet, and firſt by default of the Ayr, which in *Hungary* is extream thick and in the night filled with clouds, or if they are diſcuſſed, 'tis very thin and in the Summer time moſt hot; and otherwiſe, likewiſe in the Camps 'tis not moſt profitable; becauſe that in them it is moſt common to lie under the open canopy, and to draw the vapours which come from the ayr and the rain, and when their clothes are wet, cannot change them, and in winter time are often penn'd up in little hot-houſes. Moreover bad diet may be a cauſe of this diſeaſe, wherewith Souldiers (for want of better) are forced to make ſhift with; and thoſe for the moſt part which are accuſtomed to fare better; hence becauſe good chyle cannot be generated by evil diet, and the errors of the firſt concoction cannot be corrected in the ſecond, many filthy humours are collected within the firſt paſſages, which with the chyle are carried to the Liver, and thence into the veins; and from that evil chyle bad blood is generated, which even voluntarily tends

to

to corruption and putrifaction, and at length an unp[illegible] diſpoſition of ayr coming, it doth not only putrifie, but becomes maligne. Whence not only a putred continued Fever, but alſo a malignant is ſtirred up, and one that is alſo infectious, which may alſo infect thoſe that have no ill humours in their bodies; whence the ſymptomes do ſomthing differ. And as according to Diet, ſcituation, and other circumſtances, the matter occalioning a diſeaſe is not alwaies the ſame, ſo there happens differences in the ſymptomes joyned with the Fever. Nay in the Fever it ſelf there ariſeth certain differences in regard of the peccant humour, whence from ſome ariſe putred Synochas, from others burning cholerick Fevers: But although great ſtore of peccant matter, as hath been ſaid, occaſioned by evil diet, be collected for the moſt part in the ſtomack and firſt paſſages, yet that is not the containing cauſe of the Fever, but only ſymptomatical, ſtirr'd up by the Feveriſh heat, eſpecially in the beginning of the diſeaſe, that it cauſeth pain in the heart, anxiety, burning about the midrif, and vomiting, and increaſeth and cheriſheth the Fever it ſelf.

Nature the Ungarick diſeaſe.

And all other ſymptomes which appear in other malignant Fevers, may here alſo be preſent, and for the moſt part ſpots and ſpecks appear; but amongſt other things, the pain of the head for the moſt part is exceeding troubleſome; thence this diſeaſe amonſt the vulgar took its name **die hauptcranckheit**. Moſt that take this diſeaſe from ill diet, do complain of pain in the ſtomack, and under the pointed griſtle, where a certain retention and hardneſs is likewiſe obſerved. There is great thirſt preſently at the beginning, and the tongue dry and rough, a little after they are troubled with deliriums, which are gone again when the matter falls down to the ears, and then deafneſs enſueth.

Diagnoſtick ſigns:

'Tis an acute diſeaſe, and is terminated at moſt in about fourteen days commonly, yet in ſome not until twenty days. But what event of this diſeaſe may be hoped for, is manifeſt by what hath been already ſaid concerning malignant Fevers in general; namely, by how much the ſtrength is the greater, and the ſymptomes leſſer, by ſo much is there the more hopes of recovery; on the contrary, by how much the ſymptomes are the greater and more, and the ſtrength weaker, by ſo much the more danger; with ſome when a looſeneſs happens, 'tis a good criſis, but to moſt when the matter aſcends to the head, and thence down to the ears, and deafneſs followeth, 'tis an argument of health.

Prognoſticks

But

But as in other malignant Fevers, ſo likewiſe in this, th curing muſt be performed by taking away what feeds it, an reſiſting the malignant quality, yet the ſymptomes are not t be neglected.

Purging. And firſt concerning the Fever, and its cauſe in thoſe tha have contracted this diſeaſe from ill diet, or in the camps, thi thing happens that the vitious humours are not only contain ed in the vena cava, as in other Synochas and burning Fe vers, but there is great ſtore of humours lies hidden in th ſtomack, and about the firſt paſſages, which is known by th antecedent diet, pain in the ſtomack, anxiety, heat about th midrif, and vomiting; for then that matter is forthwith t be evacuated, as being ſuch as doth ſeverally exiſt, ſeparated from the other humours, it will not come to any concoction, but corrupts both meat and medicines being taken, and Sudo rifiques and other medicines which are taken, are carried into the more deſtructive parts of the body, and it increaſeth th Fever.

Purging But this may be done by purging, amongſt the medicines Agarick is principally commended, then alſo Vomits, by which oftentimes great ſtore of Flegmatick and Cholerick humours, of all kinds are evacuated, which lay hidden about the ſtomack: But for thoſe which took the diſeaſe only by infection, and in whom peccant humours are not collect ed in the ſtomack by reaſon of ill Diet, there is no need of Vomits or Purgation, but 'tis ſufficient only to evacuate the firſt paſſages by lenitives.

Bleeding When the firſt paſſages ſhall be freed from peccant humours, forthwith the firſt or ſecond day a vein muſt be opened, if it be neceſſary, and the ſtrength of the ſick will bear it; but in caſe ſome days are ſlipt over, and the ſtrength be weakned, and the party be troubled with vomiting, or have a looſeneſs, the breathing of a vein is to be omitted. The vein ſhould be opened in the arm, or if the party be weak, in the ancle, which likewiſe conveniently refels the matter from the head, and in this diſeaſe is very profitable.

Sudorifiques. Nature being thus eaſed of its burthen, forthwith Sudorifiques, and ſuch medicines as reſiſt malignity are to be given, yet they are ſo to be temper'd, as that they may not increaſe the heat of the humours, nor augment the Fever. Here Harts-horn prepared, Bezoar ſtone, Antimonium, Diaphoreticum, Bezoardicum minerale, Terra Sigillata, Pulvis Cæ-

ſaris

ſaris rubeus, Montaynanæ, Species liberantis, and other like before mentioned about malignant and peſtilent Fevers in general is manifeſt. If we may uſe Mithridate, Treacle, and ſuch like, that are hot, by reaſon of the vehemency of the malignity, leſt the heat ſhould be increaſed, they are to be allayed with cold waters and vinegar, to which there may conveniently be added ſpirit of Vitriol and Tartar, but 'tis not ſufficient once only to uſe ſuch medicines to provoke ſweat, or twice, but again and daylie to corroborate the ſpirits, reſiſt malignity and putrifaction, yet in a leſſer quantity then uſual, and moreover ſpecies Elect. de Gemmis, temperate Cordials, Diamargarit. Frigid. Confectio de Hyacintho, Sper. Vitriol and Tartar, Bezoar water, and other things before mentioned in the cure of the Plague, and other malignant Fevers.

Externally likewiſe to the heart is to be applied, and to the Pulſes Medicines, as alſo the ſpirits are to be preſerved with odoraments, and the malignity to be reſiſted; which were alſo mentioned before in the cure of the Plague, and other malignant Fevers. *External things.*

Laſtly, the Diet ſhould be the ſame as in malignant Fevers is expreſſed, and indeed the aliment to reſiſt putrifaction ſhould be dry; to abate the Fever, cold, and mixed with Cordials, or have cordial qualities: Wine in this Fever is hurtful, and for the moſt part thoſe that refrain it not, die. *Diet.*

CHAP. XVI.

Of a Malignant Fever with the Cramp.

A malignant Fever with the Cramp.

THere are likewise other malignant Fevers, which had accompanied with them certain other diseases, namely the Cramp, Catarhs, a Cough, and the Squincy; for in the year 1596, and 1597. in the Bishoprick of *Collen*, *Westphalia*, the County *Waldestein*, *Wittenstein*, and *Hassia*, there reigned a disease joyned with a Fever, which they then called **die Kriebeltcranctheit, Kriempstsucht, oder Bichende Senche.**

It seized upon men with a twitching and kind of benummedness in the hands and feet, somtimes on one side, somtimes on the other, and somtimes on both: Hence a Convulsion invaded men on a sudden when they were about their daylie employments, and first the fingers and toes were troubled, which Convulsion afterwards came to the arms, knees, shoulders, hips, and indeed the whole body, until the sick would lie down, and roul up their bodies round like a Ball, or else stretch out themselves straight at length: Terrible pains accompanied this evil, and great clamours and schrietchings did the sick make; some vomited when it first took them. This disease somtimes continued some days or weeks in the limbs, before it seized on the head, although fitting medicines were administred; which if they were neglected, the head was then presently troubled, and some had Epilepsies, after which fits some lay as it were dead six or eight hours, others were troubled with drowsiness, others with giddiness, which continued till the fourth day, and beyond with some, which either blindness or deafness ensued, or the Palsie: When the fit left them, men were exceeding hungry contrary to nature; afterwards for the most part a looseness followed, and in the most, the hands and feet swell'd or broke out with swellings full of waterish humours, but sweat never ensued. This disease was infectious, and the infection would continue in the body being taken once, six, seven, or twelve moneths.

The cause

This disease had its original from pestilential thin humours first invading the brain and all the nerves; but those malignant humours proceeded from bad diet when there was scarcity of provision.

This

This disease was grievous, dangerous, and hard to be cured, for such as were stricken with an Epilepsie, were scarce totally cured at all, but at intervals would have some fits, and such as were troubled with deliriums, became stupid. Others every yeer in the month of *December* and *January*, would be troubled with it.

The Cure consisted in evacuating of the peccant humors, and corroborating of the Nerves. First, therefore the vitious humors are to be purged out of the first passages with Hermodactils, Turbith, Spurge prepared, Diagrydium Electuary, called Diaphenicum, of the juyce of Roses, there being added Castor, Costus, seed of Rue and Commin. *Cure.*

Afterwards Medicins against the Convulsion, were given of Piony, Birdlyme of the Oak, Castor, Sage, Mans skull adding thereto medicines resisting malignity, with the root of Swallow-wort, Divels bit, Treacle, Mithridate; and so purging and altering medicines are to be taken by turns, and continued: The external parts were anointed and fomented with hot medicines which were proper for other Convulsions.

CHAP.

CHAP. XVII.

Of a malignant Fever, with a Catarrh, and a Cough, and the Squincy.

A malignant Fever with a Catarrh and a Cough.

SOmtimes an Epidemical Catarrh and Cough accompany Malignant Fevers; such a Fever in the year 1510. 1557. 580. and 1591. and especially in the year 1580. spread over most parts of Europe under the Northern Equinoctial And that disease was then called a Feverish Catarrh, and a Chatarrish Fever, also a suffocating Fever, der Bien und Schafshusten, Shafterancthеit und hus Nerwehe.

This Fever came with heaviness in sleep, pain of the head, a dry cough, pain of the breasts, hoarseness, pain of the stomack, difficulty of breathing, which even when the cough ceased would continue till the fourteenth day.

The causes.

This Fever proceeded from the moistness of the fore-going years; for when peccant humours were cumulated in the body, by reason of that irregularity of the ayr, and at length became putred, and malignant, and adverse to the head and breast; thence a continued Fever was kindled, and with part of the peccant humours gotten into the brain and breasts, a catarrh and cough was generated.

This disease, although most men had it, yet it was not mortal; for almost all men had it, and scarce one of a thousand died therewith.

Cure.

This Fever was cured as other malignant Fevers, also by regarding the putrifaction and malignity, and lastly, in having respect to the head and breast, which were principally troubled with this Catarrh and Cough.

Breathing a vein was not then proper, and it was found by experience, that for the most part they all died that were let blood.

But lenitive purgers were proper, because the matter did reside in the first wayes; afterwards there was administred such things as might alter the matter in the head and breast, as use to be given for a Catarrh and a Cough, and those things that resisted malignity were not to be neglected.

A malignant fever with a Squincy.

Lastly, somtimes a Squincy, Pleurisie, Peripneumonia, is joyned with a malignant Fever, and spreads over many places, as it hapned in the year 1348. as *Fracastorius* relates, and in the

the year 1557. as *Dodonæus* in chap. [illegible] of his obser[illegible] witnesseth, and in the year 1564. likewise.

VVhich Fevers for the most part did arise from the sothe[illegible] riety of ayr, and principally from its over-moist constitution, even as epidemial dysenteries arose from precedent drines of the ayr, such as hapned in the year 1583. and 1626.

Those Fevers were cured as others that were malignant. But this is to be noted besides, that regard must be taken of that part wherein the forse of the disease or symptome joyned therewith resides most, and the disease and symptome which accompany the malignant Fever should be cured in the same manner as is propounded in the cure of particular diseases. *Cure.*

CHAP.

CHAP. XVIII.

Of the Cure of Symptomatical Fevers.

Symptomes of Fevers. LAstly, there often happens in Fevers various ſymptomes which are no leſs troubleſome to the ſick then the Fevers themſelves, and therefore they require cure by themſelves, and ſhould be taken away, or abated. Such are firſt pain of the head, too much watching, profound ſleep, deliriums, convulſions, epilepſies, drineſs of the tongue, thirſt, pain of the heart, looſeneſs, faintings and ſwoonings: All which proceed from the humour that was the cauſe of the Fever, or from vapours and fumes proceeding from it, and ſo moleſteth this or that part either with its plenty, exceſs of primary qualities or malignancy.

Univerſal Purgers firſt uſed, thoſe ſymptomes are taken away by revelling, repelling, diſſipating that matter from the part affected, to the more remote parts; as need ſhall require that exceſs of qualities wherewith they are moſt troubled, to be altered and corrected, or even the malignity, if there be any, muſt be oppugned with contrary remedies, and the parts, if occaſion require, ſtrengthned; or the ſymptomes themſelves muſt be reſiſted with proper remedies. All which how to be performed, in particular to explain, is beyond the purpoſe of our Inſtitutions, but practical books ſhould be adviſed with concerning it, and eſpecially the cauſe of each ſymptome muſt be diligently ſought out; becauſe the ſame ſymptome often proceeds from divers cauſes; and moreover cannot always be be cured with the ſame Medicine.

Glory and Thankſgiving be to God.

FINIS.